Guidance Manual for

EPA Chemical Safety Audit Team Members

Chemical Emergency Preparedness and Prevention Office

Office of Solid Waste and Emergency Response

U.S. Environmental Protection Agency

December 1990

Note: This Manual supersedes all previous versions.

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1. Introduction

1.1 Purpose of this Manual

The purpose of this Manual is to provide guidance to the U.S. EPA Regional offices in implementing the Chemical Safety Audit (CSA) program, which is an outgrowth of the efforts of the Environmental Protection Agency (EPA) under the Chemical Accident Prevention (CAP) program.

This Manual, commonly referred to as the "Blue Book," includes a discussion of the following topics:

- Audit authority under CERCLA;
- Roles and responsibilities of audit team members;
- Audit preparation;
- Conducting the audit; and
- Audit protocol and report preparation.

It is recommended that each audit team member have a copy of this Manual to be used in conjunction with the Training Manuals provided at the Chemical Safety Audit Training Course. This Manual contains recommended actions, as well as mandatory procedures that must be followed to ensure the health and safety of program auditors as well as program integrity. All required/mandatory procedures or activities presented in this Manual are identified with the words "**[Required Activity]**" at the end of the sentence in which they are presented. Unless noted as a required activity, the described procedure is considered a recommendation, and the Regional office has discretion in its implementation.

1.2 Program Background and Overview

The Chemical Accident Prevention (CAP) program emerged from concerns raised by the release of methyl isocyanate at Bhopal, India, and of aldicarb oxime at Institute, West Virginia. Awareness of the critical threat to public safety posed by similar incidents led to an emphasis on preparedness and planning for response to chemical accidents. Simultaneous with the development of preparedness activities by EPA was the passage and implementation of the Emergency Planning and Community Right-to-Know Act -- Title III of the Superfund Amendments and Reauthorization Act (SARA) in 1986. Because prevention is the most effective form of preparedness, the CAP program promotes the effort to enhance prevention activities. The primary objectives of the CAP program are to identify the causes of accidental releases of hazardous substances and the means to prevent them from occurring, to promote industry initiatives in these areas, and to coordinate activities with the community, industry, and other groups (e.g., academia, professional organizations, and trade associations).

Many of the key concerns of the CAP program arise from the SARA Title III section 305(b) study entitled Review of Emergency Systems, which is described below. As a follow-up to this national prevention study, EPA has undertaken cooperative initiatives with other Federal agencies, States, industry, professional organizations, and trade associations, as well as environmental groups and academia. These joint efforts will serve to determine and implement a mechanism for developing and sharing information on release prevention technology and practices, and to enhance the state of practice in the chemical process safety arena. In addition, EPA has created a broad-based Prevention Work Group to deal with issues such as accident databases, audits, and research, and to lay the groundwork for further study (see **Figure 1**).

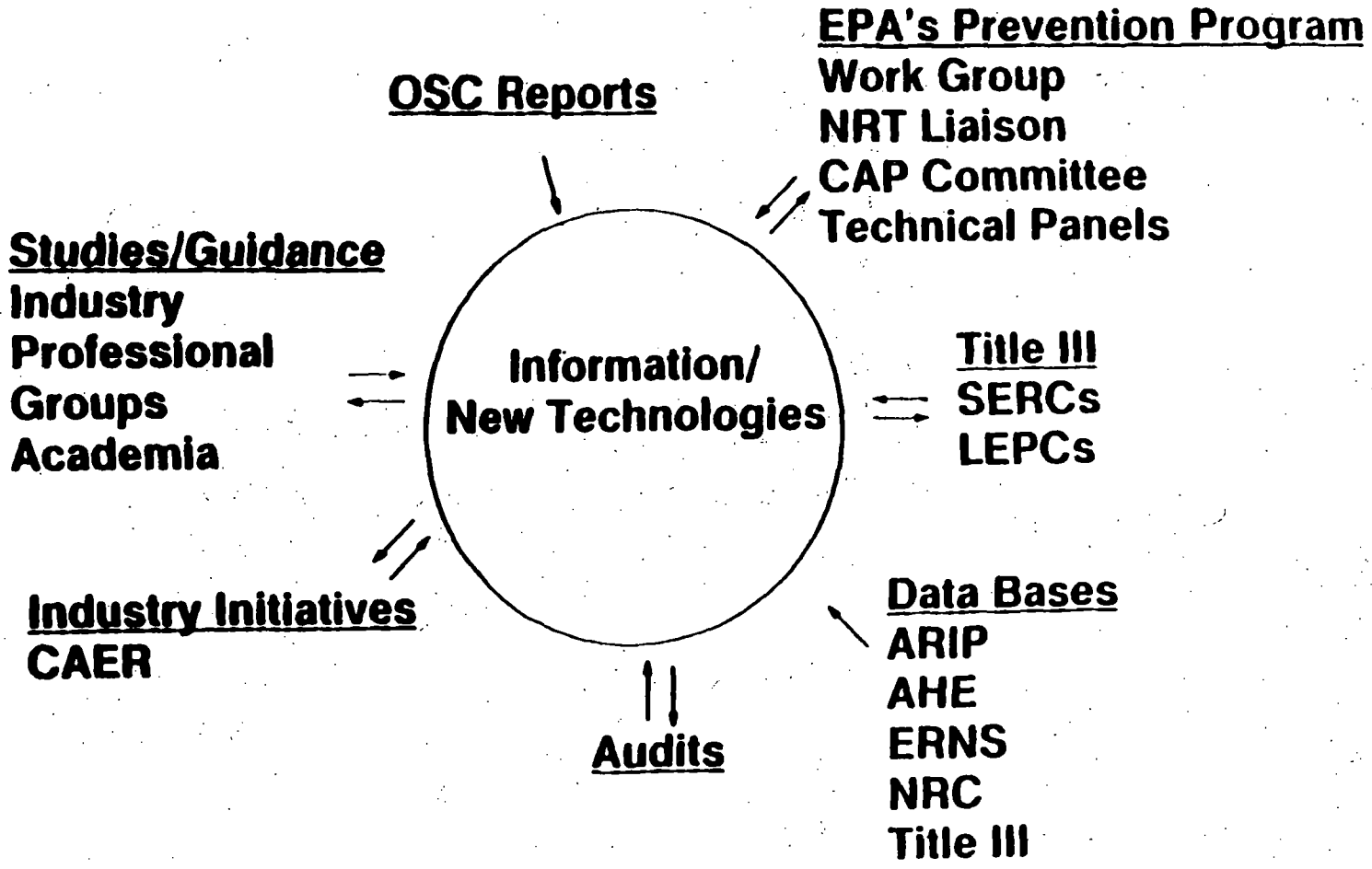
The Chemical Safety Audit program is part of this initiative and has been designed to accomplish the following chemical accident prevention goals:

- Heighten awareness of the need for chemical safety among chemical producers, distributors, and users, as well as in communities where chemicals are located;
- Visit facilities handling hazardous substances to learn and understand problematic and successful practices and technologies for preventing and mitigating releases;
- Build cooperation among authorized parties by coordinating joint accidental release investigations where appropriate; and
- Establish a national database for the assembly and distribution of chemical safety information obtained from facility audits and from other sources.

The audit itself consists of interviews with facility personnel, and on-site review of various aspects of facility operations related to the prevention of accidental chemical releases. Specific topics addressed include:

- Process characteristics;
- Hazard evaluation and release detection techniques;
- Training of operators and emergency response personnel;
- Management structure (corporate and facility);
- Preventive maintenance and inspection programs; and
- Community notification mechanisms and techniques.

Chemical Accident Prevention



EPA acts as a catalyst and coordinator, working with the public and private sector to prevent chemical accidents.

FIGURE 1

Observations and conclusions from audits are detailed in a report prepared by the audit team. The report identifies and characterizes the strengths of specific chemical accident prevention program areas to allow the elements of particularly effective programs to be recognized. Copies of the report are provided to the facility so that weak and strong program areas may be recognized.

It should be noted that the CSA program is not a compliance or inspection program. However, if serious problems are discovered during the audit, EPA has a variety of legal authorities to use in response to them which are discussed in the body of this Manual. Violations observed during the course of an audit may also be referred to the respective EPA program office or federal agency or department for determination of what actions are to be taken following the audit.

1.3 Section 305(b) Report to Congress

The June 1988 Review of Emergency Systems made a number of recommendations on the future course of prevention activities by EPA, and identified several aspects of current practices that will require careful consideration in an overall prevention strategy. First, while it is evident that risk awareness among the larger chemical producers is high, many large distributors and users of hazardous chemicals, as well as many smaller operations, have not yet attained a comparable level of accident consciousness. Second, the study also indicated the need for new technologies in certain key areas: process area monitoring devices, back-up detectors, mitigation devices, and practices to adequately identify disabled equipment of these types.

Third, the report suggested that a great degree of caution must be exercised in analyses using real-time dispersion models. The report also indicated that employee familiarity with methods of hazard evaluation was limited, which in turn suggests that improper or ineffective techniques may be in practice. Finally, the examination of management practices revealed a failure to place sufficient emphasis on safety-related issues such as standard operating procedures, employee training, preventive maintenance, and post-accident investigation, as well as a general lack of commitment to safety.

The audit reports prepared under the CSA program are intended to contribute to the study of emergency systems begun in Review of Emergency Systems, and in turn, to produce improvements in the ability of the audited facilities -- and industry in general -- to prevent or mitigate releases of hazardous substances and to share this information with the community and other interested groups. The reports outline the observations of the site visit team and the information provided by the facility and attempt to draw conclusions and make recommendations on facility safety practices, where they are warranted. In this

fashion, the CSA program serves as a vital component of EPA's Chemical Accident Prevention Program. **Attachment 1** contains the Chemical Safety Audit Program Fact Sheet which summarizes the audit program background, goals, and scope. It can be used as a separate document to inform interested parties about the audit program.

2. Program Authority under CERCLA

2.1 Purpose of the Statute

The Comprehensive, Environmental Response, Compensation and Liability Act (CERCLA or Superfund) was enacted December 11, 1980, and amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. CERCLA authorizes the federal government to respond where there is a release or a substantial threat of a release into the environment of any hazardous substance, pollutant, or contaminant that may present danger to the public health or welfare or to the environment. **Attachment 2** contains an overview of major CERCLA provisions related to the CSA program. These include CERCLA Sections 104(a), 104(b), 104(e), and 106(a). The statutory text is also included, 42 U.S.C.A. Sections 9601, 9604, and 9606.

2.2 Facility Entry and Information Gathering Tools

2.2.1 Statutory Authority

CERCLA Sections 104(b) and 104(e), as amended by SARA in 1986, provide authorities for entering a facility and accessing information. While CERCLA provides authority for States to use statutory authorities for entry and information gathering, such authorities may only be accessed pursuant to a contract or cooperative agreement with the federal government. Since no State currently has such an arrangement, States, as well as local governments, must use their own authorities for audit participation. **[Required Activity]**

2.2.2 EPA Policy and Practice

When entering pursuant to CERCLA, EPA auditors must ensure that the facility has experienced a release of a hazardous substance, pollutant, or contaminant, or that there is "reason to believe" that there exists a threat of such a release. The audits are intended to be non-confrontational and positive, cooperative efforts, such that information on safety practices, techniques, and technologies can be identified and shared between EPA and the facility. Consequently, and in conformance with other EPA program policies, audits will be performed under the above authority pursuant to the consent of the facility owner or operator. Consensual entry, however, can be revoked at any time during the audit. When withdrawal of consent takes place, the audit team shall leave the facility, regardless of the fact that the team has the authority to be there. **[Required Activity]** In either situation (i.e., entry refusal prior to audit or during audit), if consent is lacking, an order can be issued to require entry. Section 4.2 of this Manual provides guidance on obtaining entry upon consent and actions to be taken if the facility refuses entry.

An audit can also be conducted at facility invitation. When entering at the invitation of the facility (i.e., not pursuant to CERCLA authority or other statutory authorities), the audit scope can potentially be limited, since the facility determines what information will be made available to the audit team. In addition, invitational entry can be revoked by the facility at any time during the audit. The audit team has no legal authority (i.e., as compared to consensual entry) to continue the audit, and must leave the facility. **[Required Activity]**

The only exception to the described facility discretion concerning entry withdrawal for both consensual and invitational entry is if the audit team identifies a release or threat of a release of a CERCLA hazardous substance from a facility into the environment. If either of these situations are observed, the audit team must follow the prescribed procedures in Section 2.3 of this Manual. **[Required Activity]**

2.2.3 Confidential Information

During the course of an audit, team members may encounter information that may be entitled to confidential treatment. Facilities can claim confidentiality on information under CERCLA Section 104(e), as amended. If confidential business information (CBI) at a facility has been collected under another authority (e.g., TSCA, CWA), CERCLA Section 104(e) allows authorized team members to handle this confidential business information as CERCLA CBI.

This information will be handled in accordance with 40 CFR Part 2. Authorized representatives and Agency employees can access and view CBI under CERCLA. Contractors who are pre-identified by contractor name and contract number to the facility can have access to this data (refer to Section 4.2 of this Manual).

Members of the American Association of Retired Persons (AARP) are not considered to be authorized representatives under CERCLA, as amended, even though they may view trade secret data under SARA Title III. AARP enrollees cannot view or have access to CBI. A facility may waive this restriction and permit the AARP enrollees to view and access CBI. The Team Leader is responsible for informing the facility that AARP enrollees do not have authority to view or to have access to CBI. **[Required Activity]**

There are no specific training courses for handling CERCLA CBI, either on-site or off-site. In general, all confidential information must be marked as such and placed in a locked filing cabinet or a safe. It is advisable, however, that audit participants take a Regional CBI course.

2.2.4 Attorney-Client Privilege

In the event that a facility withholds information based upon "attorney-client privilege," the Regional Office of Regional Counsel (ORC) should be immediately notified and provided the following information:

- Name of document(s) withheld;
- Specific reason why withheld; and
- Name of facility attorney, address, and telephone number.

If a request for information during the course of the audit is refused, the audit should continue unless the absence of the requested document(s) makes it impossible to do so. The Office of Regional Counsel should be consulted of the refusal after the site visit and requested to pursue the matter as necessary.

2.3 Response Actions if a Release or a Threat of a Release Exists

During an audit, the team may observe a release or the potential for a release of a CERCLA hazardous substance from a facility into the environment.

If a release is observed, the team members must take the following actions: **[Required Activity]**

- Follow facility emergency evacuation procedures to safety; and
- Regroup; the Team Leader must notify the Regional Emergency Response Section to inform the on-duty On-Scene Coordinator (OSC) of events occurring at the facility. This action is not intended to serve as the facility's notification under any statute or regulation.

If the threat of a release is observed, the Team Leader must take the following actions: **[Required Activity]**

- Regroup, if necessary with the entire audit team at the facility management office;
- Inform the facility owner/operator of the observed situation; and
- If the facility owner/operator fails to take appropriate actions to mitigate the potential threat of release, the Team Leader must notify the Regional

Emergency Response Section to apprise the OSC of events occurring at the facility.

In both of the above situations, notification to the Regional Emergency Response Section must be made regardless of whether the Team Leader or members of the audit team are OSCs. The communication with the Region will determine the scope of the response action to be taken to mitigate the release or threat of release.

At this point, the audit must not continue until the release or threat of release has been mitigated, as determined by the OSC. The OSC and/or Remedial Project Manager (RPM) shall have the authority vested in them by the National Contingency Plan, 40 CFR Part 300. In addition, the OSC and/or RPM may take any necessary response actions when he/she determines that conditions at the site may present an imminent and substantial endangerment.

2.4 Relationship to Enforcement/Compliance Regulatory Programs

An EPA chemical safety audit is not an enforcement inspection or multi-media compliance audit, such as a RCRA compliance inspection or an environmental audit. Nor should an audit be confused with compliance inspections conducted by the Occupational Safety and Health Administration (OSHA) of the Department of Labor. A chemical safety audit is a visit to a facility to learn about and share technologies, techniques, and management practices for preventing and mitigating chemical accidents.

Relationship to OSHA

OSHA's primary responsibility is to protect workers, ensuring a safe and healthy environment for employees. OSHA conducts inspections to identify facility compliance with specific requirements and standards for employee health and safety and for accident investigations, especially where worker injuries or death occur. EPA and OSHA have established an Interface Council to exchange information and provide a forum for discussion of related issues.

Relationship to EPA Regulatory Programs

The audit findings are presented in a final report. If appropriate, the report can include recommended process safety practices that the facility may want to consider adopting. Report findings and recommendations are not mandatory actions that the facility must adopt, as are those identified during an enforcement/compliance inspection. Audit focus is not on reviewing facility compliance with other regulatory programs. Other media program offices already perform these activities. Use of CERCLA Sections 104(b) and 104(e) provide EPA with the

authority to enter a facility and access information for the purpose of conducting the safety audit.

Audit team members, however, will often consist of representatives from other EPA media program offices who are charged with the authority to conduct enforcement or compliance inspections and audits. In this situation, the role of this media program official must be determined prior to notifying the facility of the audit. **[Required Activity]** Facility notification involves citing the CERCLA entry and information gathering authorities. If this media program official intends to exercise authorities other than CERCLA Sections 104(b) and 104(e), then the facility must be notified that these additional authorities will be exercised. In this situation, there are two separate EPA activities being conducted at the facility: a chemical safety audit and an enforcement/compliance inspection. This additional use of other authorities must be presented in the same letter that cites use of CERCLA authorities. **[Required Activity]** Facility notification procedures are presented in Section 4.2 of this Manual.

During the conduct of a chemical safety audit that is not coupled with an enforcement inspection as presented above, program violations may be observed. These violations should be referred to the respective program office or federal agency/department for determination of what actions are to be taken following the audit.

2.5 Relationship Between CERCLA and SARA Title III

The CSA program is being conducted under CERCLA authority. While the idea of the CSA program originated from the activities undertaken to prepare the section 305(b) study mandated by Congress under SARA Title III (see the introduction to this Manual), and from similar audits conducted following catastrophic releases, there is no statutory link between the CSA program and the SARA Title III program.

The CERCLA and SARA Title III programs, however, have similar release notification provisions. A release or spill of a chemical above a certain threshold amount (the chemical's designated "reportable quantity" or "RQ") will often require two separate notifications: if the chemical is a CERCLA "hazardous substance," the National Response Center (NRC) must be notified under CERCLA Section 103(a), and if the chemical is also listed as an "extremely hazardous substance" (EHS) under SARA Title III, both the emergency coordinator of the affected community's local emergency planning committee (LEPC) and the State emergency response commission (SERC) must be notified under SARA Title III Section 304(a). CERCLA hazardous substances are listed at 40 CFR Part 302; EHSs under SARA Title III are listed at 40 CFR Part 355.

Although the two lists overlap considerably, they are not identical; approximately 134 EHSs are also CERCLA hazardous substances. It should be noted that all EHSs are proposed to be designated as CERCLA hazardous substances. In situations where the release is above the RQ of a chemical that is listed both as an EHS under SARA Title III and as a hazardous substance under CERCLA, notifications under both authorities must be given by the facility; this is because each notification is a separate requirement, and the contents and recipients of the notifications differ.

Although three notifications are often required to be given in connection with the same release, there are some instances in which only one notification is required (because not all EHSs are CERCLA hazardous substances). A release under SARA Title III that is completely "on-site" (results in exposure solely within the boundaries of the facility) does not require state and local notification. This limitation does not apply to a release of a CERCLA hazardous substance above its RQ under CERCLA Section 103(a), which must be reported to the National Response Center.

In addition, similar goals are shared by both the CSA program and the SARA Title III program. These include the following:

- Increased level of preparedness for responding to accidental releases of chemicals both at a facility and in a community;

- Increased awareness and understanding of chemical hazards; and

- Increased levels of safety practices related to producing, treating, handling, disposing, and transporting of hazardous substances at a facility.

Involvement in the CSA program by LEPCs and SERCs formed under SARA Title III is encouraged to enhance the goals of both these programs. However, State and local government participation in the audit, itself, must be performed under State and local authorities.

3. Role of Audit Team Members

3.1 Audit Team Composition

An EPA audit team consists primarily of EPA employees, and other designated representatives, including contractors and the American Association of Retired Persons (AARP) enrollees. Other Federal, State, and local government personnel, particularly SERC and LEPC representatives, may also be team members, but they will be entering and accessing information from a facility under their own authorities. Section 3.3 of this Manual further discusses the participation of non-EPA audit team personnel.

The audit team can vary in size, depending upon the level of detail of the audit (e.g., number of chemicals and/or processes under investigation; national significance). At a minimum, however, there must be two technical experts on a team for collection and verification of technical findings and observations. **[Required Activity]**

The following list represents suggested roles, responsibilities, associated disciplinary backgrounds, and other parameters for composing a team. This list is provided as guidance an in no way is a required format for forming an audit team. In many cases, your team composition may require you to combine or divide roles.

Team Leader

- Must be EPA employee; **[Required Activity]**
- Coordinates audit logistics, makes team assignments, coordinates initial liaison with facility personnel, and coordinates preparation and distribution of final site visit report; and
- Provides any needed follow-up information.

Deputy Team Leader

- Must be EPA employee or designated representative; **[Required Activity]**
- Provides logistical support, as directed by Team Leader; and
- Assumes other responsibilities delegated by Team Leader.

Chemical Process Hazards Reviewer

- Must be EPA employee or designated representative; **[Required Activity]**
- Responsible for collection and verification of process-related information;
- Primary liaison with facility technical personnel; and
- Requires technical knowledge of chemical hazards, process engineering, and maintenance procedures.

Chemical Accident Prevention Reviewer

- Must be EPA employee or designated representative; **[Required Activity]**
- Responsible for collection and verification of facility information;
- Liaison with appropriate facility technical personnel;
- Requires technical knowledge of chemical accident prevention, including hazard evaluation and modeling techniques, release prevention systems, and mitigation systems.

Safety and Training Reviewer

- Must be EPA employee or designated representative; **[Required Activity]**
- Responsible for collection and verification of facility information;
- Primary liaison with facility health and safety personnel;
- Requires knowledge of operator, safety, and worker right-to-know training programs.

Emergency Planning and Response Reviewer

- Must be EPA employee or designated representative; **[Required Activity]**
- Responsible for collection and verification of facility information;
- Primary liaison with appropriate facility personnel responsible for planning and response;

- Requires knowledge of emergency planning and response requirements.

Technical expertise for the chemical safety audit program refers to knowledge, experience, and disciplinary training in plant process design, engineering, operations, training, and emergency planning. Example disciplines include:

- Chemical, civil, industrial/ safety, and environmental engineering,
- Plant process experience,
- Environmental science,
- Industrial hygiene,
- Geology, and
- Environmental and emergency management and planning.

Expertise can be found in the following Regional program offices: media (e.g., air, water, radiation); RCRA; TSCA; Superfund (e.g., emergency preparedness and response, removal, health, and safety); and Research and Development.

In selecting team members, the skill base of the team must accommodate the need for coverage of the major audit elements:

- Process and safety system technologies;
- Operating procedures;
- Training programs;
- Planning activities; and
- Management activities.

Specific tasks should be assigned to each team member. Each member should know his/her respective role in all facets of the facility audit. Certain members may be assigned the lead on one or more facets of the audit, and the other team members, because of their individual skills and experiences, should be prepared to contribute to the completion of that facet of the audit.

In summary, an EPA audit team can consist of EPA employees, EPA contractors (e.g., Technical Assistance Team), AARP enrollees, and representatives from Federal, State, and local governments. Two basic restrictions apply to the "team": one, the Team Leader must be an EPA employee; and two, the Chemical Process Hazards Reviewer must be an EPA employee or designated representative (i.e., EPA employee, contractor, or AARP enrollee). **[Required Activity]** This last restriction is required to ensure continuity in communicating the audit scope and intent.

The following provides an overview of general roles and responsibilities for EPA employees, contractors/TAT, and AARP enrollees.

EPA Employees

- Coordinate audit program and lead the audit team.

Contractors/TAT

- Provide technical support as defined by EPA.

AARP Enrollees

- Provide support role in audits;
- Apply professional expertise and experience in chemical engineering or other technical or industrial fields for inspecting process safety at facilities;
- Apply other expertise in such areas as safety management or training for involvement in other aspects of the audit (i.e., reviewing emergency plans, training manuals, and emergency notification procedures and/or systems);
- Participate in final report preparation, including observations and recommendations based on the audit;
- Identify facilities for potential audits, using information sources such as Accidental Release Information Program (ARIP) data, and coordinate with regional response centers;
- Are limited to field activities that do not stress physical limitations; and
- Are not authorized to access confidential business information without a specific waiver from the facility.

3.2 Training and Safety Requirements

Field activities for EPA employees are subject to the training requirements embodied in EPA Order 1440.2, Health and Safety Requirements for Employees Engaged in Field Activities. The Order establishes policies, responsibilities, and mandatory requirements for occupational health and safety training and certification, and occupational medical monitoring.

EPA Order 1440.2 requires that a Site Safety Plan be developed for EPA employees conducting a chemical safety audit at a facility handling hazardous substances. EPA Regional Offices can either use the model site safety plan (see **Attachment 3**), or develop their own program that complies with EPA Order 1440 and the Occupational Safety and Health Administration's worker protection standards codified at 29 CFR 1910 and 1926. The plan

should include a description of the proposed audit scope, facility health hazards, necessary protective equipment, contractor participation, and decontamination procedures, and must be completed and approved by the EPA project coordinator, branch chief, on-scene supervisor, and health and safety manager. Under certain circumstances, a more extensive plan may also be required. For more information, contact the safety and health office in your Region.

Audit team members should dress appropriately, including steel-toed boots, safety glasses, and hard hats. Team members should provide their own safety equipment, and should not rely on the facility.

Prior to participating in an audit, all EPA team members, which include EPA employees, contractors, and AARP enrollees, must have completed the following training courses:

- Training in occupational health and safety procedures under EPA Order 1440.2. Attending a 24-hour or 40-hour health and safety course that is approved and sponsored by EPA and conducted by EPA or its contracted agents fulfills the requirement of this Order; **[Required Activity]** and

- EPA Chemical Safety Audit Training Course. (Course attendance flexibility discussed below.)

In addition to the listed training, annual medical monitoring is required. **[Required Activity]**

In some audits, a specialized technical expert (i.e., contractor, other EPA program personnel) who normally does not participate in CSA program activities will assist in conducting the audit. Under these circumstances, it will be difficult for such an individual to have taken the EPA CSA course. Consequently, the requirement for the CSA course is flexible depending upon the situation. The health and safety training requirements and medical monitoring, however, are not flexible. **[Required Activity]** This requirement should not pose any problems, since it would be rare for a technically qualified contractor or EPA employee not to have had this training.

Suggested topics for additional, but not required, training include:

- Handling of confidential business information;

- Interviewing techniques;

- Hazard evaluation techniques;

- Chemical processing techniques;

- Negotiating techniques; and

- Technical writing.

3.3 Non-EPA Personnel Participation on Audit Team

Non-EPA team members include representatives of other Federal agencies/departments, States/SERCs, local officials/LEPCs, and any other group not previously identified as an EPA team member.

All outside EPA personnel are welcome to participate in audits by invitation of the Region, but entry must be authorized pursuant to authorities other than CERCLA. Participation in the audit of non-EPA personnel must be in a support role as defined by the Team Leader. In addition, non-EPA personnel cannot serve in the capacity of Team Leader or Chemical Process Hazards Reviewer. **[Required Activity]**

SERC and LEPC participation is encouraged to enhance their knowledge of chemical hazards and process safety for use in performing SARA Title III activities. SERCs, LEPCs, and other Federal agencies also serve as a valuable source of information in preparing for the audit.

It is important to inform these representatives of the required health and safety training that EPA employees and representatives undergo prior to audit participation. As discussed in the next section, non-EPA participants require their own liability coverage.

3.4 Liability

Liability associated with conducting audits is described in the following sections for each group potentially represented on an audit team.

3.4.1 Federal Employees

Under the Federal Employees Liability Reform and Tort Compensation Act of 1988, a suit can no longer be maintained against a Federal employee in his or her individual capacity for any act (discretionary or non-discretionary) performed within the scope of the employee's employment. All such suits must now be brought against the United States government. If named in a suit in his or her individual capacity, employees should promptly notify the Office of Regional Counsel and the Office of General Counsel.

The legislation does not change the potential liability of a Federal employee in his or her individual capacity for grossly negligent actions (usually taking the action out from under the

scope of the employee's employment), for Constitutional violations, and for a violation of a statute "for which a claim is otherwise authorized." All audit participants should have audit responsibilities clearly delineated in their job description.

3.4.2 AARP Enrollees

There are no provisions for indemnifying AARP enrollees from personal liability under the cooperative agreement between AARP and EPA. Since AARP enrollees serve in support roles only in all aspects of chemical safety audit program implementation, Regional Chemical Emergency Preparedness and Prevention Coordinators and their staff are responsible for ensuring that enrollees are not placed in situations that could result in job-related personal liability.

3.4.3 Technical Assistance Team (TAT) Contractors

The Federal Employees Liability Reform and Tort Compensation Act of 1988 only covers TAT contractors when responding to a CERCLA hazardous substance release or performing a clean-up/removal related to such release. Audit activities for TAT contractors are not covered under this Act, since the contractor is not specifically handling hazardous substances, pollutants, or contaminants. TAT contractors must investigate liability coverage with their respective employer.

3.4.4 Federal, State/SERC, and Local/LEPC Government Personnel

All non-EPA personnel will be entering a facility under their own authorities and will require their own liability coverage.

3.5 Conflict of Interest

Conflict of interest refers to any person (i.e., EPA employee, contractor, AARP enrollee, non-EPA personnel) who has a financial interest associated with the facility being audited, has been previously employed with the facility, or a facility subsidiary, and/or has been a consultant for the facility. Persons with conflict of interest should not participate in any activities, either on-site or off-site, associated with the facility audit. **[Required Activity]** In addition, such persons must identify themselves to the Team Leader and excuse themselves from the audit of that facility. **[Required Activity]**

4. Preparing for the Audit

4.1 Facility Selection

At present, there are no established procedures for selecting a facility for an audit. Each Region has flexibility in identifying facilities. A variety of options useful to identifying a facility are discussed below. Although there is substantial flexibility in facility selection, there are two important requirements:

- A release of a CERCLA hazardous substance, pollutant, or contaminant must have occurred, or there must be "reason to believe" that a threat of such a release exists at the facility; **[Required Activity]** and

- The Office of Regional Counsel and the SERC of the State where the audited facility is located must be consulted to identify any legal actions currently being pursued or anticipated. It is advised that Regional media programs also be consulted. **[Required Activity]**

The following list provides a variety of options to consider when selecting a facility:

- Previous release history of the facility;

- SERC and/or LEPC referral;

- Proximity to sensitive population(s);

- Public sensitivity;

- Opportunity for sharing new technology;

- Population density; and

- Concentration of industry in the area.

Information sources to be used in determining some of these options include Federal, State, and local release notification reports and follow-up reports, OSC reports, Regional Response Centers, ARIP, ERNS, and other sources (see **Attachment 4**).

4.2 Facility Notification

Once a facility has been selected, the process of notifying the facility and scheduling the audit can be initiated. Although each Region will invariably establish its own procedures for notifying a facility and coordinating the audit, the following suggestions and tools should be integrated into that process. These suggestions are designed to help establish a constructive

rapport with the facility and to ensure the correct use of statutory authorities and other legal requirements.

The Team Leader should make an initial phone call to the facility owner/operator. The purpose of this call is to identify a "contact" at the facility for all correspondences, to communicate/explain the purpose and intent of the audit, and to schedule dates for conducting the audit. In some instances, it may be useful to schedule a pre-audit meeting with the facility to obtain further information.

The phone call should be followed by a letter to the facility contact which summarizes the initial conversation and confirms any decisions made during the call. In addition, the letter serves to confirm audit statutory authority, provide the facility an opportunity to claim confidential information, and to identify the contractor, if a contractor is participating. As previously stated in Section 2.2.3 of this Manual, the contractor must be identified by contractor name and contract number in order to have access to confidential information.

Attachment 5 is a sample letter designed to fulfill the above goals. While language may be added to the letter, such as a summary of a phone conversation, the legal aspects of the letter as contained in the attachment should not be materially altered. **[Required Activity]** It is suggested that all correspondence with the facility be reviewed by the Office of Regional Counsel (ORC).

Unfortunately, not all efforts to schedule and coordinate an audit based upon the voluntary consent of the facility will be successful. After receiving either the facility's written or verbal denial of EPA's request to conduct the audit, a letter must be sent to the facility (1) confirming this denial; and (2) invoking use of the CERCLA 104(b) and 104(e) authorities for entry. **[Required Activity]** **Attachment 6** contains a sample letter specifically designed for this situation. Preparation of this letter must be coordinated with your Office of Regional Counsel. **[Required Activity]** The suggested letter states that continued refusal of facility access can result in EPA issuing an order requesting entry and/or initiating an enforcement action.

4.3 Facility Background Information

Preliminary preparation is an important factor in conducting an organized audit. The following list is a sampling of the types and sources of information that will assist a team in preparing for the audit:

TYPES	SOURCES
Accidental Release History	OSC reports, ERNS; ARIP questionnaires SARA Title III Section 304 and 305(b) reports
Regulated History	State and federal air, water, waste permits, etc.; SARA Title III Sections 302, 304, 311, 312, and 313 submissions
Hazardous Chemicals -- Hazards, Amounts, and Locations	SARA Title III 311 and 312 submissions; OSHA; hazards analysis; and NIOSH
Chemical Processes	Acceptable standards and processing techniques from appropriate trade and professional groups, such as AIChE, ASSE, the Chlorine Institute; and Facility PIDs and PFDs
Community Involvement	CAER; LEPC; and SERC

The "Audit Protocol/Report Preparation Guidance" as presented in Section 6.0 of this Manual provides further detail on the types of information that may be requested from the facility prior to conducting the audit. **Attachment 4** contains further information on these listed sources.

4.4 Preparing for the Site Visit

Prior to conducting the on-site audit, a pre-visit meeting should be conducted with the entire audit team, including any non-EPA personnel who will be visiting the facility. This meeting should be held as close to the date of the site visit as possible to keep the important points being emphasized fresh in everyone's mind. By this time, the audit team should already be operating as a unit; all team members should be familiar with the audit protocol, the information to be obtained at the facility should have been identified, and the team members should have developed individual agendas. The pre-visit meeting serves to reinforce what already is in place and should cover the following items:

- Clearly establish the responsibility and authority of the team leader;
- Review highlights of the audit's objectives and note any specific team member responsibilities;
- Review any personal health and safety issues that may be present at the site for the team to prepare for and avoid (see Section 3.2);

- Review information about key personnel and operations at the site;

- Establish objectives and an agenda for each day of the site visit;

- Cover logistical matters such as a nightly team meeting to discuss results and plan the next day's activity; and

- Cover any other topics that the Team Leader identifies.

5. Conducting the Audit

The on-site chemical safety audit will consist of the following four phases:

- Entry;
- Opening Meeting;
- On-site Activities; and
- Exit Briefing.

5.1 Entry

The audit team should arrive at the facility during normal working hours at a time and date pre-determined with the facility. At the facility entrance office, the facility may provide a blank sign-in sheet, log, or visitor register. It is acceptable for the audit team members to sign it. EPA employees and authorized representatives, however, must not sign any type of "waiver" or "visitor release" which would relieve the facility of responsibility for injury, or which would limit the rights of the Agency to use the data obtained from the facility. **[Required Activity]** When such a waiver or release is presented, the Team Leader should politely explain that such a document cannot be signed, and a blank sign-in sheet should be requested. If the team is refused entry because they do not sign such a release, the Team Leader must report all pertinent facts to the ORC, and leave the facility if the matter cannot be resolved. **[Required Activity]** All events surrounding the refused entry must be fully documented including the name of the person(s) refusing entry. **[Required Activity]** Procedures described in Section 4.2 of this Manual concerning refusal of entry must then be followed. **[Required Activity]**

5.2 Opening Meeting

The entire audit team will meet with the plant manager and his/her key staff, and will likely discuss the entire audit. The staff of the plant manager could include superintendents of safety and operations, a lawyer, and corporate representation. The team should be very clear about its purpose and should be prepared to discuss the audit starting with an explanation of the CSA program, facility selection, the audit purpose and scope, the background research performed, the specific objectives for the site visit, and the report that will be written.

During the meeting, the audit team should outline its specific on-site agenda and the cooperation needed to accomplish that agenda. In addition, the meeting provides a good

opportunity for the facility to provide the audit team with an overview of its operations and safety programs and may include a general tour of the whole facility (as appropriate). This meeting typically requires at least a half day.

5.3 On-Site Activities

Once past the opening meeting, the audit team may split up into smaller groups to take a plant tour and interview other operations and management personnel. The plant tour should include specific tours of the chemical handling and process areas. The team should interview personnel involved in such areas as process safety, process operations, technical support, personnel, emergency planning and response, and environmental management.

During these tours and interviews, individual team members should be obtaining information and making observations that fulfill the needs of their individual responsibilities. The questions and prompts for discussion contained in the annotated audit protocol can be helpful.

During this or any other part of the site visit, it is possible that an observation will be made or that information will be obtained that should be of significance to the audit team, but that is beyond the scope of the facility audit. In this event, the Team Leader should be notified.

5.4 Exit Briefing

In this final meeting, the entire audit team will meet with the plant manager and his/her key staff to discuss the results of the audit as it presently stands. The plant manager may be accompanied by the same people who attended the opening meeting. The facility will want to know about all significant team findings and, more importantly, about the conclusions that have been drawn and the recommendations that will be made.

Prior to the exit briefing, the audit team should have a private meeting to establish an agenda for this meeting. Significant observations and findings should be listed for discussion with the facility. The team should identify conclusions based on this information only to the extent that a consensus among team members can be reached. A team consensus is also necessary for identifying any recommendations to the facility at this time. In the absence of team consensus, it is inappropriate to offer conclusions or recommendations to the facility during the exit briefing. This does not, however, preclude drawing such conclusions or making any recommendations in the audit report that will be written later.

6. Audit Protocol/Report Preparation Guidance

6.1 Purpose and Structure

This protocol/report preparation guidance (see **Exhibits 1 and 2**) provides a detailed topic outline to direct the scope and content of the audit and a structure for preparation of the audit report. The protocol and report format have been integrated to accomplish the following goals:

- Provide detailed guidance on the types of information that should be reviewed during the audit and discussed in the report;
- Ensure continuity in report preparation; and
- Provide an organized and detailed report format for easy access to specific lessons learned on chemical process safety management practices.

Because of the scope of the audit or the resources and expertise of the audit team, it may not need, or be able, to address all areas of the protocol. However, all areas of the protocol should be addressed in the audit report (e.g., state that the audit team did not review the facility's hazard evaluation and modeling capabilities).

By providing this Manual to facility personnel prior to conducting the audit, the facility will also have a more thorough understanding of the audit scope and intent. The facility can prepare for the audit by assembling information and identifying personnel with the required expertise to assist the audit team.

This guidance is structured to address each of the major elements of chemical process safety management at the facility being audited. These include:

- Facility Background Information;
- Chemical Hazards;
- Process Hazard Information;
- Chemical Accident Prevention;
- Accidental Release/Incident Investigation;
- Facility Emergency Preparedness and Planning Activities;
- Community Emergency Planning and Response Activities; and
- Public Alert and Notification Procedures.

Preceding each of these sections in the annotated protocol/report guidance (**Exhibit 2**) is a brief overview of the purpose of this section with respect to the audit scope.

Exhibit 1

Outline of Protocol/Report Preparation Guidance

1.0 INTRODUCTION

2.0 SUMMARY OF FINDINGS/CONCLUSIONS

3.0 BACKGROUND

- 3.1 General Facility and Audit Information
- 3.2 Purpose of the Audit and Facility Selection Process
- 3.3 Audit Methodology

4.0 FACILITY BACKGROUND INFORMATION

- 4.1 Site and Surrounding Area Description
  - 4.1.1 Facility Profile
  - 4.1.2 Site Topography and Meteorological Conditions
  - 4.1.3 Site Access
  - 4.1.4 Special/Sensitive Populations and Environments
  - 4.1.5 Regional Demographics
  - 4.1.6 Identification of Vulnerable Zones

5.0 CHEMICAL HAZARDS

- 5.1 Overview of Hazards for Chemical(s) Being Audited
- 5.2 Facility Management of Chemical Hazard Data

6.0 PROCESS INFORMATION FOR HAZARDOUS CHEMICALS

- 6.1 Storage and Handling
  - 6.1.1 Storage Systems
  - 6.1.2 Shipping/Receiving
  - 6.1.3 Material Transfer
- 6.2 Process Description
  - 6.2.1 Overview of Processing Steps and Operating Procedures
  - 6.2.2 General Description of Process Equipment Capacity
  - 6.2.3 Back-ups and Redundancy
  - 6.2.4 Process Parameter Monitoring
  - 6.2.5 Environmental Monitoring
- 6.3 Process Hazards

7.0 CHEMICAL ACCIDENT PREVENTION

7.1 Management Activities

7.1.1 Corporate Role in Facility Process Safety Management
7.1.2 Facility Role in Process Safety Management
7.1.3 Audit Activities and Procedures

7.2 Process Operation and Maintenance

7.2.1 Standard Operating Procedures
7.2.2 Training Practices
7.2.3 Equipment Maintenance Procedures
7.2.4 Instrument Maintenance

7.3 Hazard Evaluation and Modeling

7.3.1 Hazard Evaluation
7.3.2 Modeling

7.4 Release Prevention Systems

7.5 Mitigation Systems

8.0 ACCIDENT RELEASE INCIDENT INVESTIGATION

8.1 History of Accidental Releases/Incidents
8.2 Facility Investigation Procedures

9.0 FACILITY EMERGENCY PREPAREDNESS AND PLANNING ACTIVITIES

9.1 Facility Emergency Response Plan
9.2 Emergency Response Exercises and Simulations
9.3 Fire, Evacuation, and Rescue Corridors
9.4 Emergency Equipment Provisions
9.5 Emergency Response Chain of Authority
9.6 Emergency Response Management Procedures
9.7 Emergency Communication Network within the Facility
9.8 Emergency Response Personnel Training Requirements
9.9 Follow-up Release Procedures

10.0 COMMUNITY AND FACILITY EMERGENCY RESPONSE PLANNING ACTIVITIES

10.1 Facility Planning and Outreach Activities with Community
10.2 Local/Community Emergency Response Planning

11.0 PUBLIC ALERT AND NOTIFICATION PROCEDURES

11.1 Procedures for Public Notification of Releases
11.2 Schedule for Testing Procedures
11.3 History of Notification Procedures and Evaluation
11.4 Community and Facility Contacts
11.5 Facility and Media Interaction

12.0 CONCLUSIONS

13.0 RECOMMENDATIONS

APPENDICES

Exhibit 2

Annotated Protocol/Report Preparation Guidance

STANDARD DISCLAIMER (**Attachment 7**)

1.0 INTRODUCTION

- Purpose and scope of audit program (**Attachment 8** contains standard language for use in describing the purpose and scope of the EPA audit program); and
- Brief paragraphs identifying facility (name & location) and why audited.

2.0 SUMMARY OF FINDINGS/CONCLUSIONS

- Briefly summarize the findings (both positive and negative) at the facility in text or bullet form

3.0 BACKGROUND

3.1 General Facility and Audit Information

- Facility name, location, principal activities;
- Dates audit conducted; and
- Reference team members, affiliations, and expertise in appendix.

3.2 Purpose of the Audit and Facility Selection Process

- Briefly, why facility was chosen for audit. Audit could be conducted for a number of reasons such as:
  - -- To follow up on an accidental release to determine response actions (include description of triggering incident);
  - -- To focus on particular technologies, processes, operations, or chemicals; and
  - -- At facility invitation

3.3 Audit Methodology

- Summary of what process areas and other locations were examined and why; and

- Important limitations (e.g., no comparison of safety systems across several similar operations was performed).

4.0 FACILITY BACKGROUND INFORMATION

keep to the scope of the audit.

A detailed description of facility location and the surrounding area provides information on the potential risk facility activities may pose to the surrounding community and the environment in the event of an accidental chemical release.

4.1 Site and Surrounding Area Description

4.1.1 Facility Profile

- Facility principal activities, history (e.g., date built, activities, modifications and improvements, releases, etc.), size, layout, ancillary operations (e.g., powerhouse, warehouse, distribution center, waste treatment, etc.); and
- Reference maps in appendix or use simple maps as part of text.

4.1.2 Site Topography and Meteorological Conditions

- Natural disaster potential (e.g., earthquake, flood, hurricane);
- Geology; and
- Climate.

4.1.3 Site Access

- Transportation routes including rail and waterways.

4.1.4 Special/Sensitive Populations and Environments

- Hospitals, schools, nursing homes, etc.; and
- Wetlands, drinking water supply, etc.

4.1.5 Regional Demographics

- Economy, population, industrial and growth patterns.

4.1.6 Identification of Vulnerable Zones

ie. where is accident most likely to impact

5.0 CHEMICAL HAZARDS

Has the facility mapped this?

This section serves to not only focus briefly on the hazards associated with a particular substance, but to provide pertinent

facts on the facility's understanding of what are the chemical hazards with regard to that substance.

5.1 Overview of Hazards for Chemical(s) Being Audited

- Brief description of hazards; and
- Reference detailed information in appendix (i.e., MSDS, etc.) -- do not rewrite MSDS information.

5.2 Facility Management of Chemical Hazard Data

- What the facility recognizes as the hazards associated with chemical(s);
- Types of documentation available for hazards associated with chemical(s) (e.g., MSDS, corrosion rates, reactivity data, etc.);
- Availability of such data;
- Mechanism for updating information (e.g., effect of chemical corrosivity on change in equipment); and
- Mechanism for documenting suspected acute and chronic toxic effects (e.g., medical and industrial hygiene personnel)

6.0 PROCESS INFORMATION FOR HAZARDOUS CHEMICALS (insert name)

A review of facility operations that are associated with the processing of the chemical(s) being examined can reveal facility practices and techniques for handling process hazards, as well as reveal facility understanding of the process hazards. (Repeat the entire section for each chemical examined, if appropriate, tracing the chemical from moment it enters or is created at facility until it leaves.)

6.1 STORAGE AND HANDLING

6.1.1 Storage Systems

- Storage methods;
- Capacity;
- Location (e.g., compatibility, spacing);
- Identification (e.g., placards and color-coding systems);
- Maintenance and housekeeping of area; and
- Brief block diagram to illustrate major process flows;

6.1.2 Shipping/Receiving

- Method(s) of receiving and shipping (e.g., tank trucks, rail, cylinders, barges, etc.);
- Schedules and quantities of shipments;
- Responsible personnel and level of training;
- Coordination of transportation issues with community plan; and
- Transportation corridors used.

6.1.3 Material Transfer

- Method(s) of transferring material from storage to processing areas and between different stages of processing;
- Coding of pipes for identification;
- Other types of transfer systems (e.g., compressors, ejectors, blowers, etc.);
- Housing of transfer systems; and
- Off-site accessibility.

6.2 Process Description

6.2.1 Overview of Processing Steps and Operating Procedures

- List different operations and process steps in chronological order for hazardous chemical (can use block-type flow diagram to illustrate);
- Chemical production or use rates;
- Chemical reaction(s) description (e.g., catalysts, activators, inhibitors, exothermic, etc.);
- Blending or separation steps;
- Material incompatibility;
- Pressure and temperature variations; and
- Consequences of deviation (i.e., what happens to chemicals spilled, leaked, vented, etc.).

6.2.2 General Description of Process Equipment

- Capacity and design conditions;
- Construction material;
- Flow rates;
- Parameters monitored, controlled and recorded in control room;
- Production or use rates for chemical; and
- Comparison of design limits and operating parameters.

Note: Refer to **Attachment 9** for further guidance on reviewing process operations.

6.2.3 Back-ups and Redundancy

- Identification of systems with back-ups or automatic shutdowns;
- Description of back-ups and why used;
- Availability of back-up power systems;
- Methodology for detecting disabled control equipment; presence of back-ups; and
- For facility with scrubbers or flares, their capacity for handling accidental releases.

6.2.4 Process Parameter Monitoring

- Description of process parameters for operations/processes and why used;
- Performance history at facility;
- Monitoring and recording procedures; and
- Procedures for unsafe parameter levels.

6.2.5 Environmental Monitoring

- Description of system(s) used to monitor hazardous chemical levels in the environment (e.g., types, location, etc.) and why used; and
- Performance history at facility.

6.3 Process Hazards

- Hazards facility has identified for the process and determined to be significant, etc.

7.0 CHEMICAL ACCIDENT PREVENTION

Technological systems for controlling process hazards, as presented in Section 6.0 of this protocol/report outline, are one part of chemical process safety management. This section is intended to describe mechanisms for implementing and maintaining safe process systems. Management directives are reviewed in this section to identify goals and implemented activities, such as training, equipment change, and maintenance procedures, etc., that present the facility's perspective and commitment to safe management of process hazards.

7.1 Management Activities

7.1.1 Corporate Role in Facility Process Safety Management

- Corporate policies (e.g., guidance, documentation, directives).

7.1.2 Facility Role in Process Safety Management

- Policy and directives; and
- Goals and objectives.

7.1.3 Audit Activities and Procedures

- Frequency of facility audits;
- Responsible department;
- Audit scope (e.g., what is inspected);
- Audit procedures and timeframe; and
- Implementation of recommendations from audit (e.g., company policy, procedures).

7.2 Process Operation and Maintenance

7.2.1 Standard Operating Procedures

- Types of SOP manuals available and how reviewed and approved (i.e., operating procedures manual, supervisory operating manual, safety manual, accident and fire prevention manual, others);
- Personnel roles and responsibilities;
- Applicability of SOP manual to performing tasks during normal and emergency situations;
- Other process guides, e.g., operating logs, shift turnover procedures, overtime procedures, callout procedures during emergencies, and reporting procedures for unusual circumstances or process deviations;
- Experimental operating conditions for process change, adaption change, approvals;
- Coverage of every tank in detail; and
- Startup, shutdown, and routine operation checklists.

Note: **Attachment 10** contains suggested types of documentation and content that may want to be reviewed for providing more information on SOPs.

7.2.2 Training Practices

- Types and applicability of training available for operations and maintenance personnel (e.g., on safety and process equipment);
- Frequency of training;
- Who performs training;
- Frequency and methodology for revising training;
- Refresher courses;
- Retraining in procedural changes;
- Accident simulations and scenarios;
- Use of process simulations;
- Job duty qualifications/prerequisites;

- Frequency and types of qualification evaluations;
- Employee turnover rate; and
- Master qualification list.

7.2.3 Equipment Maintenance Procedures

- Work order systems;
- Maintenance/testing planning and scheduling;
- Preventive and predictive maintenance;
- Equipment history records;
- System for spare parts control;
- Level of training;
- Frequency of meetings and method of communication between maintenance and operations personnel;
- Prioritization of maintenance and inspections;
- Securing equipment during shift breaks;
- Use of work permits;
- Assuring proper repairs replacement; and
- Management of equipment changes (e.g., assurance of materials of construction).

7.2.4 Instrument Maintenance

- Procedures;
- Frequency and testing of instrument calibration, sensor inspections, and alarm and interlock inspections;
- Number of employees and shift coverage;
- Backup systems procedures for when a critical instrument fails;
- Management of changes in instruments;
- Error checking.

7.3 Hazard Evaluation and Modeling

7.3.1 Hazard Evaluation

- Type(s) or method(s) used at facility (e.g., What If, Hazop, etc.);
- Reason for methods selected;
- Processes/Operations covered by evaluation(s);
- Procedures for targeting and scheduling evaluation (e.g., new procedures, modification, release history, etc.);
- Frequency and basis for updating methods;
- Who conducts and reviews evaluation(s) and qualifications of such personnel;
- Use of results and methods of documentation;
- Performance of consequence analysis to understand impacts of any potential release;

- Implementation of results and recommendations;
- How is process change managed.

7.3.2 Modeling

- Uses and types of models for tracking releases into air, surface water, and groundwater; for consequence analysis;
- Processes/chemicals/operations to which models apply;
- Purposes of modeling activities (e.g. emergency planning, emergency response);
- Facility perceptions on strengths and limitations of models (e.g. ability to model dense gas releases, terrain effects, single phase versus multi-phase modeling capability);
- Parameters covered by surface models (e.g. degradation, photolysis, volatization, etc.);
- Parameters covered by groundwater models (e.g., geochemical processes, local hydrology, adsorption, desorption, etc.);
- Basic assumptions built into the models (both by model developer and user);
- Model validation against experimental measurements; and
- Use during incidents and impact (i.e., improvement of response or planning).

7.4 Release Prevention Systems

- Facility activities related to preventing a release

  -- Description of type(s) of systems in place;
  -- Why used;
  -- Performance history at facility;
  -- Testing and inspections; and
  -- Modifications performed.

Examples of activities to prevent chemical releases:

- Improvements in process and equipment design;
- Reduction of inventories;
- Changes in siting of particular equipment;
- Increased operator training;
- Increased safety reviews;
- Improved process controls;
- Installation of interlocks; and
- Failsafe design.

7.5 MITIGATION SYSTEMS

- Description of type(s) of system(s) in place;
- Why used;
- Performance history at facility; and
- Frequency of testing and inspections.

Examples of release mitigation systems include:

- Water sprays;
- Foams; and
- Physical barriers (e.g., dikes).

8.0 ACCIDENTAL RELEASE INCIDENT INVESTIGATION

Facility procedures for identifying the underlying causes of unplanned incidents, including fires, explosions, or releases of hazardous chemicals, and for preventing similar incidents from recurring serve as an important step toward the actual prevention of future incidents.

8.1 HISTORY OF ACCIDENTAL RELEASES/INCIDENTS

- Types (e.g., reportable, near miss);
- Chronicle of releases;
- Reporting history; and
- Community response and interaction.

8.2 FACILITY INVESTIGATION PROCEDURES

- Written procedures (e.g., guidelines, timeframes);
- Types of releases included (e.g., near miss; reportable under federal, state, or local law);
- Personnel responsible for investigations;
- Management involvement;
- Actions taken resulting from investigation; and
- Uses of reports (e.g., training programs, lessons learned, who shared with, etc.).

9.0 FACILITY EMERGENCY PREPAREDNESS AND PLANNING ACTIVITIES

Emergency activities in preparing for and responding to accidental releases illustrate facility knowledge, dedication, and practices for mitigating incidents.

9.1 Facility Emergency Response Plan

- Update schedule and procedures (i.e., how often revised and by whom); and
- Key areas covered (e.g., release reporting procedures, evacuation routes, and procedures).

9.2 Emergency Response Exercises and Simulations

- Types, frequency, groups involved; and
- Uses of findings.

9.3 Fire, Evacuation, and Rescue Corridors

- Condition and accessibility of fire and rescue corridors; and
- Detail and location of facility and community maps (Maps should be referenced in appendix.).

9.4 Emergency Equipment Provisions

- Types;
- Locations;
- Maintenance policies, including testing;
- Sources (off-site versus on-site); and
- Staff training/qualifications.

9.5 Emergency Response Chain of Authority

- Chain of command (e.g., designation of control during an emergency).

9.6 Emergency Response Management Procedures

- Management's role in response incident situations.

9.7 Emergency Communication Network within the Facility

- Type of communication system(s) and backups;
- Testing of communication system; and

- Training of personnel.

9.8 Emergency Response Personnel Training Requirements

- Type of training available and frequency;
- Who performs training; and
- Refresher courses.

9.9 Follow-up Release Procedures

- Clean-up (e.g., self, private contractors); and
- Review of response action with involved parties (e.g., public and private organizations).

10.0 COMMUNITY AND FACILITY EMERGENCY RESPONSE PLANNING ACTIVITIES

Communication to the community about facility activities and coordination with the community in developing emergency response plans indicate a level of facility commitment to safety, as well as revealing unique outreach activities.

10.1 Facility Planning and Outreach Activities with Community

- Awareness and participation in LEPC activities;
- Participation in CAER activities; and
- Outreach activities, open houses, joint training, education, etc.

10.2 Local/Community Emergency Response Planning

- Plan status;
- Type of coordination with community in plan preparation and exercise;
- Coordination with community response structures and procedures; and
- Facility involvement and role in non-facility-related community responses.

11.0 PUBLIC ALERT AND NOTIFICATION PROCEDURES

Public alert and notification procedures identify unique procedures and facility commitment to safety for the community.

11.1 Procedures for Public Notification of Releases

- Alarm systems;
- Communication networks; and
- Back-up systems.

11.2 Schedule for Testing Procedures

- Frequency of tests; and
- Number and type of individuals notified.

11.3 History of Notification Procedures and Evaluation

- Type of incident;
- Timeliness of public notification; and
- Number of individuals notified and methods of public and private emergency notification.

11.4 Community and Facility Contacts

- Alternate contacts; and
- Telephone number update procedures.

11.5 Facility and Media Interaction

- Direct communication links; and
- History of past interaction.

12.0 CONCLUSIONS

The conclusions highlight safety practices observed at the facility. As pointed out in Section 6.2.2, Tips for Writing the Report, the information should be presented in a factual manner and refrain from judgments of adequacy or inadequacy. This section summarizes facility practices that reflect the facility's understanding of and commitment to chemical process safety management.

13.0 RECOMMENDATIONS

If applicable, the audit team may wish to make one or more recommendations regarding observed processes, practices, technologies, and so forth. Any such recommendations should be stated clearly, and be practical and technologically feasible at the facility.

Recommendations are not required or mandatory actions that must be taken by the facility. They should be presented as options that the facility may consider to enhance their knowledge of and practices in chemical process safety management.

APPENDICES

During the audit process, the team will gather considerable material. Much of this material, while very helpful, does not belong in the main body of the audit report and should instead be placed in appendices. Examples of the types of material that might be included as appendices are:

- List of team members and facility personnel;
- Samples of memoranda, guidelines, SOPS, policy statements;
- Correspondence;
- Completed protocols and interview notes;
- Graphics such as photographs, maps, charts;
- Material safety data sheets (MSDS);
- Reports provided by the facility;
- Accident release reports; and
- Other materials obtained by the team.

All materials should be labeled with the:

- Name of the facility;
- Date; and
- Other identifying information.

6.2 Writing the Report

6.2.1 Post-Visit Meeting

The entire audit team should reassemble as soon as possible after completion of the site visit. This is important because the details of the site visit can become confused and fade rapidly. Certain items should be covered in this meeting:

- Require that team members immediately review and edit their notes from the site visit to obtain clarity and completeness;

- Begin using the audit report outline as a basis for organizing all audit information;

- Consider the major audit elements during the review and analysis process, the initial stage in to the completion of the audit report:

  - Facility Background Information;
  - Chemical Hazards;
  - Process Hazard Information;
  - Chemical Accident Prevention;
  - Accidental Release/Incident Investigation;
  - Facility Emergency Preparedness and Planning Activities;
  - Community and Facility Emergency Response Planning Activities; and
  - Public Alert and Notification.

- Review all important observations and findings identified to this point in the audit; and

- Determine whether or not any particular conclusions can be drawn or recommendations made for inclusion in the report.

6.2.2 Tips for Writing the Report

There are two main areas of consideration when preparing a report:

- Writing style; and

- Report format flexibility

Writing style

In many instances during report preparation, several individuals will be working on separate sections pertaining to his/her role in conducting the audit. Although several different writing styles may be presented in the report, it is very important that they all have one common element of presentation

style - information is factual, relevant, complete, objective, and clear. The entire report, including the "Conclusions" and "Recommendations" sections, should be presented in a factual manner and refrain from judgments of adequacy or inadequacy.

The "Conclusions" section should highlight facility safety practices observed during the audit, identifying unique facility practices that should be shared as well as areas for improvement. This summary should reflect the facility's understanding of, and commitment to, chemical process safety management, and should refrain from judgments of adequacy or inadequacy. As an example of how to present conclusions, consider the following pair of statements:

> **Incorrect.** "The facility has adequate procedures to investigate and respond to the cause(s) of accidental chemical releases."
>
> **Correct.** "The facility prepares follow-up reports for accidental releases of hazardous chemicals that occur both on- and off-site. The report addresses the cause of the incident, recommended actions to prevent the release from reoccurring, and a schedule and list of responsible individuals for implementing these actions." [If the facility uses a form for this practice, it could be referenced in an appendix.]

The first statement does not provide any information on the facility's follow-up procedures; in addition, a judgement is made on the procedures, which may or may not be valid. The latter illustrates procedures that the facility takes following an accidental release of hazardous chemicals both on- and off-site. Its style of presentation is factual and provides clear information on what the facility does without commenting on the adequacy or inadequacy of the procedures.

The "Recommendations" section should provide clearly stated suggestions and include the factual basis for each recommendation. The recommendations should be both practically and technologically feasible for the audited facility -- they are neither mandatory nor required, and are simply being presented for consideration by the audit team to the facility to enhance its chemical process safety management. As an example of how to present recommendations, consider the following pair of statements:

> **Incorrect.** "The facility should implement a preventive maintenance program."
>
> **Correct.** "The facility should evaluate the appropriateness of its use of the periodic maintenance system for maintaining pressure relief valves. This evaluation could include, among other aspects, a review of alternative

schemes, such as preventive maintenance and predictive maintenance."

The first statement does not provide any information on the facility's existing maintenance program and it does not specify the particular application for the recommended preventive maintenance. The latter clearly describes the current status of the element in question and provides alternatives for consideration. In addition, the style of presentation is appropriate for the cooperative nature of the audit program. In both the "Conclusions" and "Recommendations" sections, all statements must address observations that are presented in detail in the main body of the report.

Report format flexibility

The introduction to this section of the Manual addresses the purpose and uses of the report protocol/outline. One important purpose is to ensure consistency in report preparation. This consistency will help to facilitate analysis of conclusions and recommendations and will assist the CEPP Office in effectively identifying successful and problematic practices and technologies, and in sharing information with the Regions, other program offices, other Federal agencies, state and local governments, facilities, and other involved parties.

There are 13 major report sections (i.e., 1.0, 2.0, etc.), and when preparing the report, each of these must be addressed. **[Required Activity]** For some facilities, however, particular information relevant to a major section may not exist, or the audit team may not have been able to examine materials relevant to this element. For example, the facility may not have any system for alerting/warning the public (section 11.0) that a release has occurred, or this element may not have been reviewed by the audit team. Rather than skip that section of the report, it should be stated that the facility does not have a public alert/warning system, or that this element was not examined in the audit.

Some subsections of the report (i.e., 1.1, 3.5, 3.4.1, etc.) do not have to be separate, if the presentation of the information in a subsection format appears redundant. Many of the subsection topics are interrelated and not easily separable. For example, they may be addressed within paragraphs that discuss the topics and interrelationships. The subsections in the protocol/report guidance provide a format/structure for preparing the report, and should serve as reminders for areas to review both in conducting the preparing the report.

6.2.3 Follow-up Information

With almost any audit, there is usually a need to contact the facility after the site visit has occurred to clarify a point or to obtain more complete information. The audit report is no

different. The preferred way to handle follow-up inquiries is for the Team Leader to designate a person or persons to serve as the contact with the facility; the facility may take a similar approach in making any further responses to EPA. This minimizes the opportunity for miscommunication and lends a credible appearance to the conclusion of the audit.

6.2.4 Standard Report Disclaimer

A standard report disclaimer accompanies all audit reports and is located after the cover page. **[Required Activity] Attachment 7** contains a sample disclaimer. The report disclaimer serves to describe the scope and limitations of the audit report contents by identifying the time frame in which the audit was conducted, and by clarifying the facility's role in adopting or implementing any of the report contents.

6.3 Review and Finalization Procedures

In preparing the final audit report, there are two considerations to keep in mind:

- Access of draft report information through the Freedom of Information Act (FOIA); and
- Report inclusion of facility confidential information.

6.3.1 Access of Draft Information

In order to ensure that draft report information is not available to the public through FOIA prior to report finalization, the EPA regional office can designate an EPA official (e.g., Section, Division, or Branch Chief) to approve the report as "final." This procedure is not mandatory, but highly recommended, since this process is cited under the Deliberate Process Privilege section, exemption 5 of FOIA [5 USC 552(b)5].

Additional actions can be taken to prevent draft information from being accessible under FOIA. For example, all draft materials can be stamped "DRAFT." Draft materials can include the following citation at the bottom of each page or on a cover sheet:

"Pre-decisional Document, Not Disclosable Under FOIA"
" - Do Not Cite or Quote - "

Please note that these actions do not have legislative or regulatory authority, as compared to the finalization process described above.

6.3.2 Facility Confidential Information

Another suggested activity during the report finalization process is submission of the draft report to the facility to identify any confidential information. The facility should be contacted to establish a deadline (e.g., two weeks) to avoid lengthy delays. Any information identified as confidential should be treated as such. Comments on the report that are provided by the facility can, but do not have to be taken into consideration as the report is finalized.

6.4 Report Distribution

When the audit report is final, standard distribution by the Regional Chemical Emergency Preparedness and Prevention (CEPP) Coordinator is required to the following groups and organizations: **[Required Activity]**

- SERC and LEPC in which the facility is located;
- Facility owner/operator;
- Facility CEO;
- EPA Headquarters, Chemical Emergency Preparedness and Prevention Office, c/o Elaine Davies; and
- Any other Federal, State, and local agencies or departments that assisted in conducting the audit.

The Regional CEPP Coordinators should also consider distributing final audit reports to other EPA offices; other Federal, State, and local agencies or departments; and other private and public sector organizations. Sharing the report with Regional media offices is encouraged. EPA Headquarters will also circulate copies to interested headquarters media offices, the Prevention Work Group, and other Federal programs. Press releases of audit activities (e.g., facility visit, report finalization, etc.) are also discretionary for the Regional CEPP Coordinators and EPA Headquarters CEPP Office staff.

To help professionals conducting audits, EPA Headquarters is developing a computerized database that will provide Regions and Headquarters with information gathered from final chemical safety audit reports, organized in a uniform format consistent with the CSA protocol. The information contained in the database will be useful to the Regions for a variety of purposes, such as identifying field experts and comparing processes at different facilities for the same chemical. CEPPO will also be able to use the database to assemble and distribute information on chemical process safety management and chemical accident prevention issues and to assess the implementation of the CSA program.

Attachments

Attachment 1

CHEMICAL SAFETY AUDIT PROGRAM

FACT SHEET

FACT SHEET JANUARY 1991

CHEMICAL SAFETY AUDIT PROGRAM

BACKGROUND

The Chemical Safety Audit (CSA) program has evolved from the efforts of the U.S. Environmental Protection Agency (EPA) under the the Chemical Accident Prevention (CAP) program. The CAP program emerged from concerns raised by the release of methyl isocyanate at Bhopal, India, and of aldicarb oxime at Institute, West Virginia. Awareness of the critical threat to public safety posed by similar incidents led to an emphasis on preparedness and planning for response to chemical accidents. Simultaneous with the development of preparedness activities by EPA was the passage and implementation of the Emergency Planning and Community Right-to-Know Act -- Title III of the Superfund Amendments and Reauthorization Act (SARA) by Congress in 1986. Because prevention is the most effective form of preparedness, the CAP program promotes an effort to enhance prevention activities. The primary obejctives of the CAP program is to identify the causes of accidental releases of hazardous substances and the means to prevent them from occurring, to promote industry initiatives in these areas, and to share activities with the community, industry, and other groups.

Many of the key concerns of the CAP program arise from the SARA Title III section 305(b) study entitled Review of Emergency Systems. As part of the information gathering efforts to prepare this study, EPA personnel conducted a number of facility site visits to evaluate chemical process safety management practices. The study covers technologies, techniques, and practices for preventing, detecting, and monitoring releases of extremely hazardous substances, and for alerting the public to such releases. One of the key recommendations resulting from the study was the continuation and expansion of the audit program.

As a follow-up to this national prevention study, EPA has undertaken cooperative initiatives with Federal agencies, States, industry groups, professional organizations, and trade associations, as well as environmental groups and academia. These joint efforts will serve to determine and implement a means to share information on release prevention technology and practices, and to enhance the state of practice in the chemical process safety arena.

PROGRAM GOALS

The CSA program is part of this broad initiative and has been designed to accomplish the following chemical accident prevention goals:

- Heighten awareness of the need for chemical safety among chemical producers, distributors, and users, as well as in communities where chemicals are located;
- Visit facilities handling hazardous substances to learn and understand problematic and successful practices and technologies for preventing and mitigating releases;
- Build cooperation among authorized parties by coordinating joint accidental release investigations where appropriate; and
- Establish a national database for the assembly and distribution of chemical safety information obtained from facility investigations and from other sources.

PROGRAM AUTHORITY

The Comprehensive, Environmental Response, Compensation and Liability Act (CERCLA or Superfund) was enacted December 11, 1980, and amended by SARA on October 17, 1986. CERCLA authorizes the federal government to respond where there is a release or a substantial threat of a release into the environment of any hazardous substance, pollutant, or contaminant that may present danger to the public health or welfare or to the environment.

CERCLA Sections 104(b) and 104(e), as amended by SARA in 1986, provide authorities for entering a facility and accessing information to conduct a chemical safety audit by EPA. While CERCLA provides authority for States to use statutory authorities for entry and information gathering, such authorities may only be accessed pursuant to a contract or cooperative agreement with the federal government. Since there is no such arrangement, States, as well as local governments, must use their own authorities for audit participation.

As a matter of EPA policy, if entering pursuant to CERCLA, all facilities that will receive an audit must have experienced a release of a hazardous substance, pollutant, or contaminant, or there must be "reason to believe" that there exists a threat of such a release. The audits are intended to be nonconfrontational and positive, such that information on safety practices, techniques, and technologies can be identified and shared between EPA and the facility. Involvement in the CSA program by Local Emergency Planning Committees (LEPCs) and State Emergency Response Commissions

(SERCs) formed under SARA Title III is encouraged to enhance the goals of both of these programs. However, as stated above, State and local government participation in the audit, itself, must be performed under State and local authorities.

AUDIT SCOPE

The audit consists of interviews with facility personnel, and on-site review of various aspects of facility operations related to the prevention of accidental chemical releases. Specific topics addressed include:

- Process characteristics;
- Hazard evaluation and release detection techniques;
- Training of operators and emergency response personnel;
- Management structure (corporate and local);
- Preventive maintenance and inspection programs; and
- Community notification mechanisms and techniques.

Observations and conclusions from audits are detailed in a report prepared by the audit team. The report identifies and characterizes the strengths of specific Chemical Accident Prevention program areas to allow the elements of particularly effective programs to be recognized. Copies of the report are provided to the facility so that weak and strong program areas may be recognized. The audit is conducted following the Guidance Manual for EPA Chemical Safety Audit Team Members, issued by EPA Headquarters. This guidance contains recommended actions, as well as mandatory procedures that must be followed to ensure the health and safety of program auditors and program integrity. Each member of the audit team should have a copy of the manual, and a copy of the manual is transmitted to the audited facility.

AUDIT TEAM COMPOSITION

An EPA audit team primarily consists of EPA employees, and other designated representatives including contractors and the American Association of Retired Persons (AARP) enrollees. Other Federal, State, and local government personnel may also be team members.

The audit team can vary in size, depending upon the level of detail of the audit (e.g., number of chemicals and/or processes under investigation; national significance). At a minimum, however, there must be two technical experts on a team.

FACILITY SELECTION

At present, there are no established procedures for selecting a facility for an audit. Each EPA Region has flexibility in identifying facilities. A variety of options to use in selecting a facility can be considered:

- Previous history of the facility;
- SERC and/or LEPC referral.
- Proximity to sensitive population(s);
- Public sensitivity;
- Opportunity for sharing new technology;
- Population density; and
- Concentration of industry in the area.

Information sources to be used in determining some of these options include Federal, State, and local release notification reports and follow-up reports, On-Scene Coordinator (OSC) reports, Regional Response Centers, Accidental Release Information Program (ARIP), Emergency Response Notification System (ERNS), and other sources.

REPORT DISTRIBUTION

Standard distribution by Regional EPA offices of the audit report will be at a minimum to:

- SERC and LEPC in which the facility is located;
- Facility owner/operator;
- Facility CEO;
- EPA Headquarters; and
- Any other Federal, State, and local agencies or departments that assisted in conducting the audit.

Distribution is available to other EPA offices, other Federal, State, and local agencies or departments, and other private and public sector organizations.

CSA PROGRAM BENEFITS

- Identification of effective, field-proven chemical accident prevention technologies and practices.
- Better understanding of the causes of chemical releases.
- Greater awareness by facilities of chemical safety and understanding of available techniques, and specific suggestions for improved programs.
- Identification of problem areas in industry where more attention is needed.
- Cooperation and coordination of chemical safety programs with other Federal and State agencies through joint audits and training.

For more information on the Chemical Safety Audit program, contact the Chemical Emergency Preparedness Program (CEPP) office in your Regional EPA office.

Attachment 2

CERCLA Provisions Overview and CERCLA Statute

Section 104(a) Removal and Other Remedial Actions

This section provides the federal government with the authority to respond to releases or threatened releases of hazardous substances, pollutants, or contaminants in certain situations.

Section 104(a) authorizes the EPA Administrator "to act, consistent with the national contingency plan, to remove or arrange for the removal of, and provide for remedial action relating to such hazardous substances, pollutants, or contaminants at any time, or take any other response measure consistent with the national contingency plan which the Administrator deems necessary to protect public health or welfare or the environment," where:

- Any hazardous substance is released;
- There is a substantial threat that a hazardous substance will be released into the environment;
- Any pollutant or contaminant is released into the environment "which may present an imminent and substantial danger to the public health or welfare;" or
- There is a substantial threat that a pollutant or contaminant may be released into the environment "which may present an imminent and substantial danger to the public health or welfare."

Section 104(b) Investigatory Response

Under Section 104(b), the Administrator is authorized to "undertake such investigations, monitoring, surveys, testing, and other information gathering" that may be needed "to identify the existence and extent of the release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health or welfare or to the environment." This investigatory response can be initiated whenever the Administrator can act under Section 104(a) when he has "reason to believe" that:

- A release has occurred;
- A release is about to occur; or

- "Illness, disease, or complaints thereof may be attributed to exposure to a hazardous substance, pollutant, or contaminant and that a release may have occurred or be occurring."

Section 104(e) Information Gathering and Access

Under Section 104(e), a designated representative of the President or a State or political subdivision under a contract or cooperative agreement is authorized to obtain information and gain access to sites and adjacent property "for the purposes of determining the need for response, or choosing or taking" a response, or to enforce any provision of CERCLA. The authority to enter a site and to inspect and take samples from a site may only be exercised where "there is a reasonable basis to believe there may be a release or threat of release of a hazardous substance or pollutant or contaminant."

Access to Information. Section 104(e) authorizes any designated official, upon reasonable notice, to require persons to provide relevant information or documents concerning:

- "Identification, nature and quantity of materials which have been or are generated, treated, stored, or disposed of" at the facility;

- "The nature or extent of a release or threatened release of a hazardous substance or pollutant or contaminant at" the facility; and

- "Information relating to the ability of a person to pay or perform a cleanup."

In addition, upon reasonable notice, Section 104(e) requires persons to grant access to a facility to inspect and copy all documents or records, or at their option to provide copies.

Entry. Designated representatives are authorized to enter at reasonable times, any vessel, facility, establishment, or other place or property:

- "Where any hazardous substance, pollutant, or contaminant may be or has been generated, stored, treated, disposed of, or transported from;"

- "From which or to which a hazardous substance, pollutant, or contaminant has been or may have been released;" and

- "Where entry is needed to determine the need for response or the appropriate response or to effectuate a response action."

Compliance Orders. If consent is not granted for access to information, entry onto the facility, and inspection or sampling, Section 104(e)(5) authorizes EPA to:

- "Issue an order directing compliance with the request," after such notice and opportunity for consultation;
- Ask the Attorney General to commence a civil action to compel compliance with a request or order; and
- Asess civil penalties up to $25,000/day for failure to comply with the order.

Section 104(e) also provides for the right to obtain access or information in any other lawful manner, which includes warrants.

Confidentiality of Information. Section 104(e)(7) provides that no person required to provide information under CERCLA may claim that such information is entitled to protection unless such person shows each of the following:

- The "person has not described the information to any other person, other than a member of a local emergency planning committee under Title III of SARA," an officer or employee of the U.S. or a State or local government, an employee of such person, or a person who is bound by a confidentiality agreement, and such person has taken reasonable measures to protect the confidentiality of such information and intends to continue to take such measures;"
- "The information is not required to be disclosed, or otherwise made available, to the public under any other Federal or State law;"
- "Disclosure of the information is likely to cause substantial harm to the competitive position of such person;" and
- "The specific chemical identity, if sought to be protected, is not readily discoverable through reverse engineering."

The following information on hazardous substances is not entitled to protection:

- Trade name, common name, or generic class or category;
- Physical properties;
- Hazards to health and the environment, including physical hazards (e.g., explosion) and potential acute and chronic health hazards;

- Potential routes of human exposure;
- Disposal location of any waste stream;
- Monitoring data or analysis on disposal activities;
- Hydrogeologic or geologic data; and
- Groundwater monitoring data.

Section 106(a) Abatement Action

This section of CERCLA provides the federal government with the authority to pursue administrative and judicial action to require responsible parties to respond to actual or threatened releases of hazardous substances. If the Administrator "determines that there may be an imminent and substantial endangerment to the public health or welfare or the environment," he has two options under 106(a):

- Require the Attorney General to seek the necessary relief in the Federal district court where the threat occurs. The district court is given jurisdiction to grant relief as the public interest and the equities of the case may require; or
- Act on his own, after providing notice to the affected State, to take other action, including the issuance of orders that may be necessary to protect public health and welfare and the environment.

Note: Statutory texts of these reviewed CERCLA sections follows.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY

(42 U.S.C.A. §§ 9601 to 9675)

CHAPTER 103—COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY

SUBCHAPTER I—HAZARDOUS SUBSTANCES RELEASES, LIABILITY, COMPENSATION

SUBCHAPTER IV—POLLUTION INSURANCE

Sec.

West's Federal Forms

Administrative agency decisions and orders, enforcement and review, see § 851 et seq.
Administrative subpoenas, enforcement, see § 6004 et seq.
Depositions and discovery, see §§ 3271 et seq., 3681 et seq.
Intervention, motion for leave, see § 3111 et seq.
Jurisdiction and venue in district courts, see § 1003 et seq.
Production of documents, motions and orders pertaining to, see § 3551 et seq.
Sentence and fine, see § 7531 et seq.
Subpoenas, see § 3981 et seq.

WESTLAW Electronic Research

See WESTLAW guide following the Explanation pages of this pamphlet.

SUBCHAPTER I—HAZARDOUS SUBSTANCES RELEASES, LIABILITY, COMPENSATION

§ 9601. Definitions

For purpose of this subchapter—

(1) The term "act of God" means an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight.

(2) The term "Administrator" means the Administrator of the United States Environmental Protection Agency.

(3) The term "barrel" means forty-two United States gallons at sixty degrees Fahrenheit.

(4) The term "claim" means a demand in writing for a sum certain.

(5) The term "claimant" means any person who presents a claim for compensation under this chapter.

(6) The term "damages" means damages for injury or loss of natural resources as set forth in section 9607(a) or 9611(b) of this title.

(7) The term "drinking water supply" means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act [42 U.S.C. 300f et seq.]) or as drinking water by one or more individuals.

(8) The term "environment" means (A) the navigable waters, the waters of the contiguous zone, and the ocean waters for which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act [16 U.S.C. 1801 et seq.], and (B) any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

(9) The term "facility" means (A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

(10) The term "federally permitted release" means (A) discharges in compliance with a permit under section 1342 of Title 33, (B) discharges resulting from circumstances identified and reviewed and made part of the public record with respect to a permit issued or modified under section 1342 of Title 33 and subject to a condition of such permit, (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 1342 of Title 33, which are caused by events occurring within the scope of relevant operating or treatment systems, (D) discharges in compliance with a legally enforceable permit under section 1344 of Title 33, (E) releases in compliance with a legally enforceable final permit issued pursuant to section 3005(a) through (d) of the Solid Waste Disposal Act [42 U.S.C. 6925(a) to (d)] from a hazardous waste treatment, storage, or disposal facility when such permit specifically

identifies the hazardous substances and makes such substances subject to a standard of practice, control procedure or bioassay limitation or condition, or other control on the hazardous substances in such releases, (F) any release in compliance with a legally enforceable permit issued under section 1412 of Title 33 of[1] section 1413 of Title 33, (G) any injection of fluids authorized under Federal underground injection control programs or State programs submitted for Federal approval (and not disapproved by the Administrator of the Environmental Protection Agency) pursuant to part C of the Safe Drinking Water Act [42 U.S.C. 300h et seq.], (H) any emission into the air subject to a permit or control regulation under section 111 [42 U.S.C. 7411], section 112 [42 U.S.C. 7412], Title I part C [42 U.S.C. 7470 et seq.], Title I part D [42 U.S.C. 7501 et seq.], or State implementation plans submitted in accordance with section 110 of the Clean Air Act [42 U.S.C. 7410] (and not disapproved by the administrator of the Environmental Protection Agency), including any schedule or waiver granted, promulgated, or approved under these sections, (I) any injection of fluids or other materials authorized under applicable State law (i) for the purpose of stimulating or treating wells for the production of crude oil, natural gas, or water, (ii) for the purpose of secondary, tertiary, or other enhanced recovery of crude oil or natural gas, or (iii) which are brought to the surface in conjunction with the production of crude oil or natural gas and which are reinjected, (J) the introduction of any pollutant into a publicly owned treatment works when such pollutant is specified in and in compliance with applicable pretreatment standards of section 1317(b) or (c) of Title 33 and enforceable requirements in a pretreatment program submitted by a State or municipality for Federal approval under section 1342 of Title 33, and (K) any release of source, special nuclear, or byproduct material, as those terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq.], in compliance with a legally enforceable license, permit, regulation, or order issued pursuant to the Atomic Energy Act of 1954.

(11) The term "Fund" or "Trust Fund" means the Hazardous Substance Superfund established by section 9507 of Title 26.

(12) The term "ground water" means water in a saturated zone or stratum beneath the surface of land or water.

(13) The term "guarantor" means any person, other than the owner or operator, who provides evidence of financial responsibility for an owner or operator under this chapter.

(14) The term "hazardous substance" means (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act [42 U.S.C. 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] has been suspended by Act of Congress), (D) any toxic pollutant listed under section 1317(a) of Title 33, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act [42 U.S.C. 7412], and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

(15) The term "navigable waters" or "navigable waters of the United States" means the waters of the United States, including the territorial seas.

(16) The term "natural resources" means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the fishery conservation zone established by the Magnuson Fishery Conservation and Management Act [16 U.S.C. 1801 et seq.]) any State or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.

(17) The term "offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel.

(18) The term "onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land or nonnavigable waters within the United States.

(19) The term "otherwise subject to the jurisdiction of the United States" means subject to the

jurisdiction of the United States by virtue of United States citizenship, United States vessel documentation or numbering, or as provided by international agreement to which the United States is a party.

(20)(A) The term "owner or operator" means (i) in the case of a vessel, any person owning, operating, or chartering by demise, such vessel, (ii) in the case of an onshore facility or an offshore facility, any person owning or operating such facility, and (iii) in the case of any facility, title or control of which was conveyed due to bankruptcy, foreclosure, tax delinquency, abandonment, or similar means to a unit of State or local government, any person who owned, operated or otherwise controlled activities at such facility immediately beforehand. Such term does not include a person, who, without participating in the management of a vessel or facility, holds indicia of ownership primarily to protect his security interest in the vessel or facility.

(B) In the case of a hazardous substance which has been accepted for transportation by a common or contract carrier and except as provided in section 9607(a)(3) or (4) of this title, (i) the term "owner or operator" shall mean such common carrier or other bona fide for hire carrier acting as an independent contractor during such transportation, (ii) the shipper of such hazardous substance shall not be considered to have caused or contributed to any release during such transportation which resulted solely from circumstances or conditions beyond his control.

(C) In the case of a hazardous substance which has been delivered by a common or contract carrier to a disposal or treatment facility and except as provided in section 9607(a)(3) or (4) of this title (i) the term "owner or operator" shall not include such common or contract carrier, and (ii) such common or contract carrier shall not be considered to have caused or contributed to any release at such disposal or treatment facility resulting from circumstances or conditions beyond its control.

(D) The term "owner or operator" does not include a unit of State or local government which acquired ownership or control involuntarily through bankruptcy, tax delinquency, abandonment, or other circumstances in which the government involuntarily acquires title by virtue of its function as sovereign. The exclusion provided under this paragraph shall not apply to any State or local government which has caused or contributed to the release or threatened release of a hazardous substance from the facility, and such a State or local government shall be subject to the provisions of this chapter in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity, including liability under section 9607 of this title.

(21) The term "person" means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States Government, State, municipality, commission, political subdivision of a State, or any interstate body.

(22) The term "release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but excludes (A) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (B) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (C) release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq.], if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act [42 U.S.C. 2210], or, for the purposes of section 9604 of this title or any other response action, any release of source byproduct, or special nuclear material from any processing site designated under section 7912(a)(1) or 7942(a) of this title, and (D) the normal application of fertilizer.

(23) The term "remove" or "removal" means the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary[2] taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat or release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 9604(b) of this title, and any emergency assistance which may be provided under the Disaster Relief Act of 1974 [42 U.S.C. 5121 et seq.].

(24) The term "remedy" or "remedial action" means those actions consistent with permanent

remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, cleanup of released hazardous substances or contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, onsite treatment or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, alone or in combination with other measures, such relocation is more cost-effective than and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition offsite of hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes offsite transport and offsite storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials.

(25) The term "respond" or "response" means remove, removal, remedy, and remedial action, all such terms (including the terms "removal" and "remedial action") include enforcement activities related thereto.

(26) The term "transport" or "transportation" means the movement of a hazardous substance by any mode, including pipeline (as defined in the Pipeline Safety Act), and in the case of a hazardous substance which has been accepted for transportation by a common or contract carrier, the term "transport" or "transportation" shall include any stoppage in transit which is temporary, incidental to the transportation movement, and at the ordinary operating convenience of a common or contract carrier, and any such stoppage shall be considered as a continuity of movement and not as the storage of a hazardous substance.

(27) The terms "United States" and "State" include the several States of the Unites States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Marianas, and any other territory or possession over which the United States has jurisdiction.

(28) The term "vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water.

(29) The terms "disposal", "hazardous waste", and "treatment" shall have the meaning provided in section 1004 of the Solid Waste Disposal Act [42 U.S.C. 6903].

(30) The terms "territorial sea" and "contiguous zone" shall have the meaning provided in section 1362 of Title 33.

(31) The term "national contingency plan" means the national contingency plan published under section 1321(c) of Title 33 or revised pursuant to section 9605 of this title.

(32) The term "liable" or "liability" under this subchapter shall be construed to be the standard of liability which obtains under section 1321 of Title 33.

(33) The term "pollutant or contaminant" shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except that the term "pollutant or contaminant" shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of paragraph (14) and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas).

(34) The term "alternative water supplies" includes, but is not limited to, drinking water and household water supplies.

(35)(A) The term "contractual relationship", for the purpose of section 9607(b)(3) of this title includes, but is not limited to, land contracts, deeds or other instruments transferring title or possession, unless the real property on which the facility concerned is located was acquired by the defendant after the disposal or placement of the hazardous substance on, in, or at the facility, and one or more of the circumstances described in clause (i), (ii), or (iii) is also established by the defendant by a preponderance of the evidence:

(i) At the time the defendant acquired the facility the defendant did not know and had no reason to know that any hazardous substance which is the subject of the release or threatened release was disposed of on, in, or at the facility.

(ii) The defendant is a government entity which acquired the facility by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation.

(iii) The defendant acquired the facility by inheritance or bequest.

In addition to establishing the foregoing, the defendant must establish that he has satisfied the requirements of section 9607(b)(3)(a) and (b) of this title.

(B) To establish that the defendant had no reason to know, as provided in clause (i) of subparagraph (A) of this paragraph, the defendant must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability. For purposes of the preceding sentence the court shall take into account any specialized knowledge or experience on the part of the defendant, the relationship of the purchase price to the value of the property if uncontaminated, commonly known or reasonably ascertainable information about the property, the obviousness of the presence or likely presence of contamination at the property, and the ability to detect such contamination by appropriate inspection.

(C) Nothing in this paragraph or in section 9607(b)(3) of this title shall diminish the liability of any previous owner or operator of such facility who would otherwise be liable under this chapter. Notwithstanding this paragraph, if the defendant obtained actual knowledge of the release or threatened release of a hazardous substance at such facility when the defendant owned the real property and then subsequently transferred ownership of the property to another person without disclosing such knowledge, such defendant shall be treated as liable under section 9607(a)(1) of this title and no defense under section 9607(b)(3) of this title shall be available to such defendant.

(D) Nothing in this paragraph shall affect the liability under this chapter of a defendant who, by any act or omission, caused or contributed to the release or threatened release of a hazardous substance which is the subject of the action relating to the facility.

(36) The term "Indian tribe" means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(37)(A) The term "service station dealer" means any person—

(i) who owns or operates a motor vehicle service station, filling station, garage, or similar retail establishment engaged in the business of selling, repairing, or servicing motor vehicles, where a significant percentage of the gross revenue of the establishment is derived from the fueling, repairing, or servicing of motor vehicles, and

(ii) who accepts for collection, accumulation, and delivery to an oil recycling facility, recycled oil that (I) has been removed from the engine of a light duty motor vehicle or household appliances by the owner of such vehicle or appliances, and (II) is presented, by such owner, to such person for collection, accumulation, and delivery to an oil recycling facility.

(B) For purposes of section 9614(c) of this title the term "service station dealer" shall, notwithstanding the provisions of subparagraph (A), include any government agency that establishes a facility solely for the purpose of accepting recycled oil that satisfies the criteria set forth in subclauses (I) and (II) of subparagraph (A)(ii), and, with respect to recycled oil that satisfies the criteria set forth in subclauses (I) and (II), owners or operators of refuse collection services who are compelled by State law to collect, accumulate, and deliver such oil to an oil recycling facility.

(C) The President shall promulgate regulations regarding the determination of what constitutes a significant percentage of the gross revenues of an establishment for purposes of this paragraph.

(38) The term "incineration vessel" means any vessel which carries hazardous substances for the purpose of incineration of such substances, so long as such substances or residues of such substances are on board.

(Dec. 11, 1980, Pub.L. 96–510, Title I, § 101, 94 Stat. 2767; Dec. 22, 1980, Pub.L. 96–561, Title II, § 238(b), 94 Stat. 3300; as amended Oct. 17, 1986, Pub.L. 99–499, Title I, §§ 101, 114(b), 127(a), Title V, § 517(c)(2), 100 Stat. 1615, 1652, 1692, 1774.)

[1] So in original. Probably should be "or".

[2] So in original. Probably should be "necessarily".

(e) Applicability to registered pesticide product

This section shall not apply to the application of a pesticide product registered under the Federal Insecticide, Fungicide, and Rodenticide Act [7 U.S.C. 136 et seq.] or to the handling and storage of such a pesticide product by an agricultural producer.

(f) Exemptions from notice and penalty provisions for substances reported under other Federal law or is in continuous release, etc.

No notification shall be required under subsection (a) or (b) of this section for any release of a hazardous substance—

(1) which is required to be reported (or specifically exempted from a requirement for reporting) under subtitle C of the Solid Waste Disposal Act [42 U.S.C. 6921 et seq.] or regulations thereunder and which has been reported to the National Response Center, or

(2) which is a continuous release, stable in quantity and rate, and is—

(A) from a facility for which notification has been given under subsection (c) of this section, or

(B) a release of which notification has been given under subsections (a) and (b) of this section for a period sufficient to establish the continuity, quantity, and regularity of such release:

Provided, That notification in accordance with subsections (a) and (b) of this paragraph shall be given for releases subject to this paragraph annually, or at such time as there is any statistically significant increase in the quantity of any hazardous substance or constituent thereof released, above that previously reported or occurring.

(Dec. 11, 1980, Pub.L. 96–510, Title I, § 103, 94 Stat. 2772; Dec. 22, 1980, Pub.L. 96–561, Title II, § 238(b), 94 Stat. 3300; as amended Oct. 17, 1986, Pub.L. 99–499, Title I, §§ 103, 109(a)(1), (2), 100 Stat. 1617, 1632, 1633.)

Library References

Health and Environment ⇐25.5(10), 25.6(3), (9), 25.7(3), (24).
C.J.S. Health and Environment §§ 92, 103 et seq., 106, 113 et seq.

§ 9604. Response authorities

(a) Removal and other remedial action by President; applicability of national contingency plan; response by potentially responsible parties; public health threats; limitations on response: exception

(1) Whenever (A) any hazardous substance is released or there is a substantial threat of such a release into the environment, or (B) there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare, the President is authorized to act, consistent with the national contingency plan, to remove or arrange for the removal of, and provide for remedial action relating to such hazardous substance, pollutant, or contaminant at any time (including its removal from any contaminated natural resource), or take any other response measure consistent with the national contingency plan which the President deems necessary to protect the public health or welfare or the environment. When the President determines that such action will be done properly and promptly by the owner or operator of the facility or vessel or by any other responsible party, the President may allow such person to carry out the action, conduct the remedial investigation, or conduct the feasibility study in accordance with section 9622 of this title. No remedial investigation or feasibility study (RI/FS) shall be authorized except on a determination by the President that the party is qualified to conduct the RI/FS and only if the President contracts with or arranges for a qualified person to assist the President in overseeing and reviewing the conduct of such RI/FS and if the responsible party agrees to reimburse the Fund for any cost incurred by the President under, or in connection with, the oversight contract or arrangement. In no event shall a potentially responsible party be subject to a lesser standard of liability, receive preferential treatment, or in any other way, whether direct or indirect, benefit from any such arrangements as a response action contractor, or as a person hired or retained by such a response action contractor, with respect to the release or facility in question. The President shall give primary attention to those releases which the President deems may present a public health threat.

(2) Removal action

Any removal action undertaken by the President under this subsection (or by any other person referred to in section 9622 of this title) should, to the extent the President deems practicable, contribute to the efficient performance of any long term remedial action with respect to the release or threatened release concerned.

(3) Limitations on response

The President shall not provide for a removal or remedial action under this section in response to a release or threat of release—

(A) of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found;

(B) from products which are part of the structure of, and result in exposure within, residential buildings or business or community structures; or

(C) into public or private drinking water supplies due to deterioration of the system through ordinary use.

(4) Exception to limitations

Notwithstanding paragraph (3) of this subsection, to the extent authorized by this section, the President may respond to any release or threat of release if in the President's discretion, it constitutes a public health or environmental emergency and no other person with the authority and capability to respond to the emergency will do so in a timely manner.

(b) Investigations, monitoring, etc., by President

(1) Information; studies and investigations

Whenever the President is authorized to act pursuant to subsection (a) of this section, or whenever the President has reason to believe that a release has occurred or is about to occur, or that illness, disease, or complaints thereof may be attributable to exposure to a hazardous substance, pollutant, or contaminant and that a release may have occurred or be occurring, he may undertake such investigations, monitoring, surveys, testing, and other information gathering as he may deem necessary or appropriate to identify the existence and extent of the release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health or welfare or to the environment. In addition, the President may undertake such planning, legal, fiscal, economic, engineering, architectural, and other studies or investigations as he may deem necessary or appropriate to plan and direct response actions, to recover the costs thereof, and to enforce the provisions of this chapter.

(2) Coordination of investigations

The President shall promptly notify the appropriate Federal and State natural resource trustees of potential damages to natural resources resulting from releases under investigation pursuant to this section and shall seek to coordinate the assessments, investigations, and planning under this section with such Federal and State trustees.

(c) Criteria for continuance of obligations from Fund over specified amount for response actions; consultation by President with affected States; contracts or cooperative agreements by States with President prior to remedial actions; cost-sharing agreements; selection by President of remedial actions; State credits: granting of credit, expenses before listing or agreement, response actions between 1978 and 1980, State expenses after December 11, 1980, in excess of 10 percent of costs, item-by-item approval, use of credits; operation and maintenance; limitation on source of funds for O&M; recontracting; siting

(1) Unless (A) the President finds that (i) continued response actions are immediately required to prevent, limit, or mitigate an emergency, (ii) there is an immediate risk to public health or welfare or the environment, and (iii) such assistance will not otherwise be provided on a timely basis, or (B) the President has determined the appropriate remedial actions pursuant to paragraph (2) of this subsection and the State or States in which the source of the release is located have complied with the requirements of paragraph (3) of this subsection, or (C) continued response action is otherwise appropriate and consistent with the remedial action to be taken [1] obligations from the Fund, other than those authorized by subsection (b) of this section, shall not continue after $2,000,000 has been obligated for response actions or 12 months has elapsed from the date of initial response to a release or threatened release of hazardous substances.

(2) The President shall consult with the affected State or States before determining any appropriate remedial action to be taken pursuant to the authority granted under subsection (a) of this section.

(3) The President shall not provide any remedial actions pursuant to this section unless the State in which the release occurs first enters into a contract or cooperative agreement with the President providing assurances deemed adequate by the President that (A) the State will assure all future maintenance of the removal and remedial actions provided for the expected life of such actions as determined by the President; (B) the State will assure the availability of a hazardous waste disposal facility acceptable to the President and in compliance with the requirements of subtitle C of the Solid Waste Disposal Act [42 U.S.C.A. § 6921 et seq.] for any necessary offsite storage, destruction, treatment, or secure disposition of the hazardous substances; and (C) the State will pay or assure payment of (i) 10 per centum of the costs of the remedial action, including all future maintenance, or (ii) 50 percent (or such greater amount as the President may determine appropriate, taking into account the degree of responsibility of the State or political subdivision for the release) of any sums expended in response to a release at a facility, that was operated by the State or a political subdivision thereof, either directly or through a contractual relationship or otherwise, at the time of any disposal of hazardous substances therein. For the purpose of clause (ii) of this subparagraph, the term "facility" does not include navigable waters or the beds underlying those waters. The President shall grant the State a credit against the share of the costs for which it is responsible under this paragraph for any documented direct out-of-pocket non-Federal funds expended or obligated by the State or a political subdivision thereof after January 1, 1978, and before December 11, 1980, for cost-eligible response actions and claims

vene in any civil action involving the enforcement of such contract or subcontract.

(4) Where two or more noncontiguous facilities are reasonably related on the basis of geography, or on the basis of the threat, or potential threat to the public health or welfare or the environment, the President may, in his discretion, treat these related facilities as one for purposes of this section.

(e) Information gathering and access; action authorized, access to information, entry, inspection and samples; authority and samples, compliance orders; issuance and compliance, other authority, confidentiality of information; basis for withholding

(1) Action authorized

Any officer, employee, or representative of the President, duly designated by the President, is authorized to take action under paragraph (2), (3), or (4) (or any combination thereof) at a vessel, facility, establishment, place, property, or location or, in the case of paragraph (3) or (4), at any vessel, facility, establishment, place, property, or location which is adjacent to the vessel, facility, establishment, place, property, or location referred to in such paragraph (3) or (4). Any duly designated officer, employee, or representative of a State or political subdivision under a contract or cooperative agreement under subsection (d)(1) of this section is also authorized to take such action. The authority of paragraphs (3) and (4) may be exercised only if there is a reasonable basis to believe there may be a release or threat of release of a hazardous substance or pollutant or contaminant. The authority of this subsection may be exercised only for the purposes of determining the need for response, or choosing or taking any response action under this subchapter, or otherwise enforcing the provisions of this subchapter.

(2) Access to information

Any officer, employee, or representative described in paragraph (1) may require any person who has or may have information relevant to any of the following to furnish, upon reasonable notice, information or documents relating to such matter:

(A) The identification, nature, and quantity of materials which have been or are generated, treated, stored, or disposed of at a vessel or facility or transported to a vessel or facility.

(B) The nature or extent of a release or threatened release of a hazardous substance or pollutant or contaminant at or from a vessel or facility.

(C) Information relating to the ability of a person to pay for or to perform a cleanup.

In addition, upon reasonable notice, such person either (i) shall grant any such officer, employee, or representative access at all reasonable times to any vessel, facility, establishment, place, property, or location to inspect and copy all documents or records relating to such matters or (ii) shall copy and furnish to the officer, employee, or representative all such documents or records, at the option and expense of such person.

(3) Entry

Any officer, employee, or representative described in paragraph (1) is authorized to enter at reasonable times any of the following:

(A) Any vessel, facility, establishment, or other place or property where any hazardous substance or pollutant or contaminant may be or has been generated, stored, treated, disposed of, or transported from.

(B) Any vessel, facility, establishment, or other place or property from which or to which a hazardous substance or pollutant or contaminant has been or may have been released.

(C) Any vessel, facility, establishment, or other place or property where such release is or may be threatened.

(D) Any vessel, facility, establishment, or other place or property where entry is needed to determine the need for response or the appropriate response or to effectuate a response action under this subchapter.

(4) Inspection and samples

(A) Authority

Any officer, employee or representative described in paragraph (1) is authorized to inspect and obtain samples from any vessel, facility, establishment, or other place or property referred to in paragraph (3) or from any location of any suspected hazardous substance or pollutant or contaminant. Any such officer, employee, or representative is authorized to inspect and obtain samples of any containers or labeling for suspected hazardous substances or pollutants or contaminants. Each such inspection shall be completed with reasonable promptness.

(B) Samples

If the officer, employee, or representative obtains any samples, before leaving the premises he shall give to the owner, operator, tenant, or other person in charge of the place from which the samples were obtained a receipt describing the sample obtained and, if requested, a portion of each such sample. A copy of the results of any analysis made of such samples shall be furnished promptly to the owner, oper-

ator, tenant, or other person in charge, if such person can be located.

(5) Compliance orders

(A) Issuance

If consent is not granted regarding any request made by an officer, employee, or representative under paragraph (2), (3), or (4), the President may issue an order directing compliance with the request. The order may be issued after such notice and opportunity for consultation as is reasonably appropriate under the circumstances.

(B) Compliance

The President may ask the Attorney General to commence a civil action to compel compliance with a request or order referred to in subparagraph (A). Where there is a reasonable basis to believe there may be a release or threat of a release of a hazardous substance or pollutant or contaminant, the court shall take the following actions:

(i) In the case of interference with entry or inspection, the court shall enjoin such interference or direct compliance with orders to prohibit interference with entry or inspection unless under the circumstances of the case the demand for entry or inspection is arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law.

(ii) In the case of information or document requests or orders, the court shall enjoin interference with such information or document requests or orders or direct compliance with the requests or orders to provide such information or documents unless under the circumstances of the case the demand for information or documents is arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law.

The court may assess a civil penalty not to exceed $25,000 for each day of noncompliance against any person who unreasonably fails to comply with the provisions of paragraph (2), (3), or (4) or an order issued pursuant to subparagraph (A) of this paragraph.

(6) Other authority

Nothing in this subsection shall preclude the President from securing access or obtaining information in any other lawful manner.

(7) Confidentiality of information

(A) Any records, reports, or information obtained from any person under this section (including records, reports, or information obtained by representatives of the President) shall be available to the public, except that upon a showing satisfactory to the President (or the State, as the case may be) by any person that records, reports, or information, or particular part thereof (other than health or safety effects data), to which the President (or the State, as the case may be) or any officer, employee, or representative has access under this section if made public would divulge information entitled to protection under section 1905 of Title 18, such information or particular portion thereof shall be considered confidential in accordance with the purposes of that section, except that such record, report, document or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, or when relevant in any proceeding under this chapter.

(B) Any person not subject to the provisions of section 1905 of Title 18 who knowingly and willfully divulges or discloses any information entitled to protection under this subsection shall, upon conviction, be subject to a fine of not more than $5,000 or to imprisonment not to exceed one year, or both.

(C) In submitting data under this chapter, a person required to provide such data may (i) designate the data which such person believes is entitled to protection under this subsection and (ii) submit such designated data separately from other data submitted under this chapter. A designation under this paragraph shall be made in writing and in such manner as the President may prescribe by regulation.

(D) Notwithstanding any limitation contained in this section or any other provision of law, all information reported to or otherwise obtained by the President (or any representative of the President) under this chapter shall be made available, upon written request of any duly authorized committee of the Congress, to such committee.

(E) No person required to provide information under this chapter may claim that the information is entitled to protection under this paragraph unless such person shows each of the following:

(i) Such person has not disclosed the information to any other person, other than a member of a local emergency planning committee established under title III of the Amendments and Reauthorization Act of 1986 [42 U.S.C.A. § 11001 et seq.], an officer or employee of the United States or a State or local government, an employee of such person, or a person who is bound by a confidentiality agreement, and such

person has taken reasonable measures to protect the confidentiality of such information and intends to continue to take such measures.

(ii) The information is not required to be disclosed, or otherwise made available, to the public under any other Federal or State law.

(iii) Disclosure of the information is likely to cause substantial harm to the competitive position of such person.

(iv) The specific chemical identity, if sought to be protected, is not readily discoverable through reverse engineering.

(F) The following information with respect to any hazardous substance at the facility or vessel shall not be entitled to protection under this paragraph:

(i) The trade name, common name, or generic class or category of the hazardous substance.

(ii) The physical properties of the substance, including its boiling point, melting point, flash point, specific gravity, vapor density, solubility in water, and vapor pressure at 20 degrees Celsius.

(iii) The hazards to health and the environment posed by the substance, including physical hazards (such as explosion) and potential acute and chronic health hazards.

(iv) The potential routes of human exposure to the substance at the facility, establishment, place, or property being investigated, entered, or inspected under this subsection.

(v) The location of disposal of any waste stream.

(vi) Any monitoring data or analysis of monitoring data pertaining to disposal activities.

(vii) Any hydrogeologic or geologic data.

(viii) Any groundwater monitoring data.

(f) Contracts for response action; compliance with Federal health and safety standards

In awarding contracts to any person engaged in response actions, the President or the State, in any case where it is awarding contracts pursuant to a contract entered into under subsection (d) of this section, shall require compliance with Federal health and safety standards established under section 9651(f) of this title by contractors and subcontractors as a condition of such contracts.

(g) Rates for wages and labor standards applicable to covered work

(1) All laborers and mechanics employed by contractors or subcontractors in the performance of construction, repair, or alteration work funded in whole or in part under this section shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act [40 U.S.C. 276a et seq.]. The President shall not approve any such funding without first obtaining adequate assurance that required labor standards will be maintained upon the construction work.

(2) The Secretary of Labor shall have, with respect to the labor standards specified in paragraph (1), the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267) and section 276c of Title 40.

(h) Emergency procurement powers; exercise by President

Notwithstanding any other provision of law, subject to the provisions of section 9611 of this title, the President may authorize the use of such emergency procurement powers as he deems necessary to effect the purpose of this chapter. Upon determination that such procedures are necessary, the President shall promulgate regulations prescribing the circumstances under which such authority shall be used and the procedures governing the use of such authority.

(i) Agency for Toxic Substances and Disease Registry; establishment, functions, etc.

(1) There is hereby established within the Public Health Service an agency, to be known as the Agency for Toxic Substances and Disease Registry, which shall report directly to the Surgeon General of the United States. The Administrator of said Agency shall, with the cooperation of the Administrator of the Environmental Protection Agency, the Commissioner of the Food and Drug Administration, the Directors of the National Institute of Medicine, National Institute of Environmental Health Sciences, National Institute of Occupational Safety and Health, Centers for Disease Control, the Administrator of the Occupational Safety and Health Administration, the Administrator of the Social Security Administration, the Secretary of Transportation, and appropriate State and local health officials, effectuate and implement the health related authorities of this chapter. In addition, said Administrator shall—

(A) in cooperation with the States, establish and maintain a national registry of serious diseases and illnesses and a national registry of persons exposed to toxic substances;

(B) establish and maintain inventory of literature, research, and studies on the health effects of toxic substances;

(C) in cooperation with the States, and other agencies of the Federal Government, establish

health or the environment posed by the release of such hazardous constituents at such facility. This subparagraph refers only to available information on actual concentrations of hazardous substances and not on the total quantity of special study waste at such facility.

(3) Savings provisions

Nothing in this subsection shall be construed to limit the authority of the President to remove any facility which as of October 17, 1986 is included on the National Priorities List from such list, or not to list any facility which as of such date is proposed for inclusion on such list.

(4) Information gathering and analysis

Nothing in this chapter shall be construed to preclude the expenditure of monies from the Fund for gathering and analysis of information which will enable the President to consider the specific factors required by paragraph (2).

(Dec. 11, 1980, Pub.L. 96-510, Title I, § 105, 94 Stat. 2779, as amended Oct. 17, 1986, Pub.L. 99-499, Title I, § 105, 100 Stat. 1625.)

Code of Federal Regulations

Oil and hazardous substances pollution contingency plan, see 40 CFR 300.1 et seq.

Library References

Health and Environment ⇐25.6, 25.7.
C.J.S. Health and Environment §§ 91 et seq., 106 et seq.

§ 9606. Abatement actions

(a) Maintenance, jurisdiction, etc.

In addition to any other action taken by a State or local government, when the President determines that there may be an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility, he may require the Attorney General of the United States to secure such relief as may be necessary to abate such danger or threat, and the district court of the United States in the district in which the threat occurs shall have jurisdiction to grant such relief as the public interest and the equities of the case may require. The President may also, after notice to the affected State, take other action under this section including, but not limited to, issuing such orders as may be necessary to protect public health and welfare and the environment.

(b) Fines; reimbursement

(1) Any person who, without sufficient cause, willfully violates, or fails or refuses to comply with, any order of the President under subsection (a) of this section may, in an action brought in the appropriate United States district court to enforce such order, be fined not more than $25,000 for each day in which such violation occurs or such failure to comply continues.

(2)(A) Any person who receives and complies with the terms of any order issued under subsection (a) of this section may, within 60 days after completion of the required action, petition the President for reimbursement from the Fund for the reasonable costs of such action, plus interest. Any interest payable under this paragraph shall accrue on the amounts expended from the date of expenditure at the same rate as specified for interest on investments of the Hazardous Substance Superfund established under subchapter A of chapter 98 of Title 26.

(B) If the President refuses to grant all or part of a petition made under this paragraph, the petitioner may within 30 days of receipt of such refusal file an action against the President in the appropriate United States district court seeking reimbursement from the Fund.

(C) Except as provided in subparagraph (D), to obtain reimbursement, the petitioner shall establish by a preponderance of the evidence that it is not liable for response costs under section 9607(a) of this title and that costs for which it seeks reimbursement are reasonable in light of the action required by the relevant order.

(D) A petitioner who is liable for response costs under section 9607(a) of this title may also recover its reasonable costs of response to the extent that it can demonstrate, on the administrative record, that the President's decision in selecting the response action ordered was arbitrary and capricious or was otherwise not in accordance with law. Reimbursement awarded under this subparagraph shall include all reasonable response costs incurred by the petitioner pursuant to the portions of the order found to be arbitrary and capricious or otherwise not in accordance with law.

(E) Reimbursement awarded by a court under subparagraph (C) or (D) may include appropriate costs, fees, and other expenses in accordance with subsections (a) and (d) of section 2412 of Title 28.

(c) Guidelines for using imminent hazard, enforcement, and emergency response authorities; promulgation by Administrator of EPA, scope, etc.

Within one hundred and eighty days after December 11, 1980, the Administrator of the Environmental Protection Agency shall, after consultation with the Attorney General, establish and publish guidelines for using the imminent hazard, enforcement, and emergency response authorities of this section and other existing statutes administered by the Administrator of the Environmental Protection Agency to effectuate the responsibilities and pow-

Attachment 3

MODEL SITE SAFETY PLAN FOR CHEMICAL SAFETY AUDITS

SITE SAFETY PLAN FOR CHEMICAL SAFETY AUDITS

The OSHA Hazardous Waste Site Worker Standards (29 CFR 1910.120), the EPA Safety Manual, Chapter 9, and other EPA protocols require certain safety planning efforts prior to field activities. The following format is aligned with these requirements. Extensive training and certifications, and further planning in the form of a more extensive Site Safety Plan, may be required in addition to the following plan.

PROJECT: _____

Project Coordinator: _____ Date: _____

Branch Chief: _____ Date: _____

On Scene Coordinator or

Supervisor: _____ Date: _____

Health and Safety Manager

Approval: _____ Date: _____

DESCRIPTION OF ACTIVITY

If any of the following information is unavailable, mark "UA"; if covered in project plan, mark "PP."

Site Name: _____

Location and approximate size: _____

Description of the response activity and/or the job tasks to be performed:

_____

_____

_____

Duration of the Planned Employee Activity: _____

_____

Proposed Date of Beginning the Investigation: _____

Site Topography: _____

Site Accessibility by Air and Roads: _____

HAZARDOUS SUBSTANCES AND HEALTH HAZARDS INVOLVED OR SUSPECTED AT THE SITE

Fill in any information that is known or suspected

Areas of Concern	Chemical and Physical Properties	Identity of Substance and Precautions
Explosivity:		
Radioactivity:		
Oxygen Deficiency: (e.g., Confined Spaces)		
Toxic Gases:		
Skin/Eye Contact Hazards:		
Heat Stress:		

Pathways from site for hazardous substance dispersion: _____

WORK PLAN INSTRUCTIONS

A. Recommended Level of Protection: A _____ B _____ C _____

Cartridge Type, if Level C: _____

Additional Safety Clothing/Equipment: _____

_____

Monitoring Equipment to be Used: _____

_____

_____

_____

_____

_____

CONTRACTOR PERSONNEL:

Number of Skills: _____

_____

_____

_____

CONTRACTOR SAFETY CLOTHING/EQUIPMENT REQUIRED: _____

_____

_____

_____

Have contractors received OSHA required training and certification? (29 CFR 1910.120)

(If "yes," copy of training certificate(s) must be obtained from contractor)

B. Field Investigation and Decontamination Procedures:

Decontamination Procedures (contaminated protective clothing, instruments, equipment, etc.): _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Disposal Procedures (contaminated equipment, supplies, disposal items, wash-water, etc.): _____

EMERGENCY CONTACTS

Hospital Phone No.: _____

Hospital Location: _____

EMT/Ambulance Phone No.: _____

Police Phone No.: _____

Fire Assistance Phone No.: _____

Regional Health and Safety Manager: _____

Attachment 4

Sources of Information Concerning Hazardous Substance Releases

The **Accidental Release Information Program (ARIP)**. EPA established ARIP to promote safety initiatives by industry and to develop a national database on the causes of chemical accidents, but more importantly, to identify methods used to prevent recurrences. The data collected in ARIP are derived from questionnaires completed by selected facilities that have reported releases to the National Response Center (NRC), as required by law.

Facilities selected to receive an ARIP questionnaire have experienced a "triggered" release exhibiting one or more of the following characteristics:

- Release quantities in excess of a multiple of the CERCLA reportable quantity for the chemical involved;
- Releases resulting in deaths or injuries;
- Releases that are part of a trend of frequent releases from the same facility; or
- Releases involving extremely hazardous substances designated under SARA Title III.

State Emergency Response Commissions (SERCs) and **Local Emergency Planning Committees (LEPCs)**. SERCs and LEPCs established under SARA Title III receive Section 304 reports detailing accidental releases of hazardous chemicals (those listed under the OSHA HCS and CERCLA) and SERCs also received Section 313 reports recording annual releases, routine and accidental, of hazardous substances by manufacturing facilities.

The **National Response Center (NRC)**. The NRC receives notifications on accidental releases that are subject to Reportable Quantity requirements of CERCLA. The NRC has been notified of thousands of hazardous substance releases since 1978, including over 4,000 in the last fiscal year alone.

The **Emergency Response Notification System (ERNS)**. ERNS is a recent effort of the Agency to channel the State, Regional, and NRC reports on releases of oil and hazardous substances into one central database. ERNS is used by EPA for enforcement tracking and program management purposes.

The **Environmental Protection Agency (EPA)**. Both the national and Regional offices of EPA receive reports and notifications on accidental releases.

The **Acute Hazardous Events Data Base (AHE/DB).** Designed by EPA, AHE/DB collects a representative sample of event reports from the above and other sources into a form that is more convenient for gaining perspective on accidental releases and drawing policy conclusions. Developed in 1985, it was recently updated and expanded to 6,300 records.

The **Section 305(b) Report to Congress on Emergency Systems.** Mandated by SARA Title III, the report was a three-stage process. Information on certain facilities with completed questionnaires is available. The report and backup information provide a good technical understanding for detecting, monitoring and preventing releases, as well as for public alert.

The **Federal Emergency Management Agency (FEMA).** FEMA keeps a record of all incidents involving the participation of emergency management personnel.

The **Occupation Safety and Health Administration (OSHA)** and the **National Institute of Occupational Safety and Health (NIOSH).** OSHA and NIOSH have records of accidents in the workplace.

U.S. Coast Guard Marine Safety Offices (MSO). Local MSOs regularly conduct inspections of waterfront facilities. These inspection reports are available from the respective MSO, and can provide useful facility information.

Attachment 5

Sample First Letter to Facility Owner/Operator

Dear (*Facility Owner/Operator*):

Through the records retained by the National Response Center pursuant to Section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), the U.S. Environmental Protection Agency has identified your facility as a site at which there has occurred a reportable release of a CERCLA hazardous substance. The EPA is currently conducting chemical safety audits of particular facilities identified through the Section 103(a) reporting system for the purpose of identifying technological and managerial mechanisms that might be implemented to prevent future threatened releases harmful to human health and the environment. The audit includes an on-site visit during which a review of equipment, procedures, training, and management techniques is conducted to identify the cause of the release.

Due to a report filed by the (*facility name*) under Section 103(a) of CERCLA, (*facility name*) has been chosen as a potential candidate for an EPA chemical safety audit. The Agency is requesting your cooperation in an audit of your facility under the authorities of Sections 104(b) and 104(e) CERCLA, by (*names and affiliation of audit team*) on (*date*), or on a date convenient to you. Please be assured that the audit team will make every effort to minimize any interference with your plant operations during the actual safety audit.

If you wish to assert a business confidentiality claim for part or all of the information collected, such a claim must accompany the information when it is received by EPA, or it may be made available to the public without further notice to you. Information covered by a confidentiality claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in EPA regulations at 40 CFR Part 2. EPA has contracted with (*contractor name and contract number*) to obtain information pertinent to conducting the safety audit. (*Contractor name*) has been designated as an authorized representative of the Agency. Therefore, (*contractor name*) is subject to the provisions of Section 104(e) of CERCLA respecting confidentiality of methods or processes entitled to protection as trade secrets.

EPA would like to conduct this audit in a constructive and positive manner. The EPA solicits your prompt response to the above request. If you have any questions about the audit or the Chemical Safety Audit program, please contact (*Regional contact*) for further information.

Sincerely,

Attachment 6

Sample Letter to Facility Owner/Operator who has not Responded or Consented to the Audit

Dear (Facility Owner/Operator):

Through the records retained by the National Response Center pursuant to Section 103(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), the U.S. Environmental Protection Agency has identified your facility as a site at which there has occurred a reportable release of a CERCLA hazardous substance. The EPA is currently conducting chemical safety audits of particular facilities identified through the Section 103(a) reporting system for the purpose of identifying technological and managerial mechanisms that might be implemented to prevent future threatened releases harmful to human health and the environment. The (*facility name*) has been chosen for a chemical safety audit due to its reportable release(s) of (*CERCLA hazardous substance(s)*) on (*date of release*). The audit includes an on-site visit in which a review of equipment, procedures, training and management techniques is conducted to identify the cause of release. We wish to assure you that we will make every effort to minimize any interference with your plant operations during the course of the audit.

On (*date*) EPA sent you a letter requesting your voluntary cooperation in a chemical safety audit of your facility. [*The Agency has not received a reply to that request.*] [(*By letter dated* _____,) (*Through a telephone conversation on* _____,) *you indicated that you will not extend your voluntary cooperation to an audit of your facility.*] You should be aware that Sections 104(b) and 104(e)(4)(A) of CERCLA specifically give EPA the right to access private property where there is a reasonable basis to believe that there has been or may be a release or threat of release of a hazardous substance or pollutant or contaminant. Failure to grant such access within _____ days of receipt of this letter, or adequately to justify such failure to grant such access, can result in EPA enforcing an order requesting entry pursuant to Section 104(e)(5) by seeking a warrant and/or penalties for noncompliance with the entry order. Section 104(e)(5)(B) of CERCLA permits EPA to seek the imposition of up to twenty-five thousand dollars ($25,000) for each day that you fail to grant access to EPA. Please be further advised that provision of false, fictitious, or fraudulent statements or representations may subject you to criminal penalties under 18 U.S.C. Section 1001.

If you wish to assert a business confidentiality claim for part or all of the information collected, such a claim must accompany the information when it is received by EPA, or it may be made available to the public without further notice to you. Information covered by a confidentiality claim will be disclosed by EPA only to the extent and by means of the procedures set forth in

EPA regulations at 40 CFR Part 2. EPA has contracted with (*contractor name and contract number*) to obtain information pertinent to conducting the safety audit. (*Contractor name*) has been designated as an authorized representative of the Agency. Therefore, (*contractor name*) is subject to the provisions of Section 104(e) of CERCLA respecting confidentiality of methods or processes entitled to protection as trade secrets.

Due to the legal ramifications of your failure to grant access, EPA strongly encourages you to give this matter your immediate attention and further consideration within the time specified. If you have any legal or technical questions relating to this matter, you may consult with the EPA prior to the time specified above. Please direct legal questions to (*Name of ORC Person*) of the Office of Regional Counsel at _____. Technical questions should be directed to (*Name of Program Person*), at the above address, or at _____.

Sincerely,

Attachment 7

Standard Report Disclaimer

The contents of this report reflect information concerning the (*facility name*) facility obtained during a U.S. Environmental Protection Agency chemical safety audit and from records provided by the (*facility name*) facility. The audit was conducted from (*audit dates*), and observations as presented in this report provide a snapshot of conditions existing at the facility during the audit time frame. They do not represent planned or anticipated changes proposed or on-going at the facility. The recommendations and other report observations contained in this report are not mandatory actions that the facility must implement. In addition, EPA makes no assurances that if implemented, the recommendations and other report observations contained in this report will prevent future chemical accidents, equipment failures, or unsafe management practices, and/or provide protection from a future enforcement action under any applicable law or regulation.

Attachment 8

Standard Language for Audit Report Introduction

The Chemical Safety Audit (CSA) program has evolved from the efforts of the U.S. Environmental Protection Agency (EPA) under the Chemical Accident Prevention (CAP) program. The primary objectives of the CAP program are to identify the causes of accidental releases of hazardous substances and the means to prevent such releases from occurring, to promote industry initiatives in these areas, and to share activities with the community.

The Chemical Safety Audit program is part of this broad initiative, and has been designed to accomplish the following chemical accident prevention goals:

- Heighten awareness of the need for chemical safety among chemical producers, distributors, and users, as well as in communities where chemicals are located;
- Visit facilities handling hazardous substances to learn and understand problematic and successful practices and technologies for preventing and mitigating releases;
- Build cooperation among authorized parties by coordinating joint accidental release investigations where appropriate; and
- Establish a national database for the assembly and distribution of chemical safety information obtained from facility investigations and from other sources.

The audit consists of interviews with facility personnel, and on-site review of various aspects of facility operations related to the prevention of accidental chemical releases. CERCLA Sections 104(b) and 104(e), as amended by SARA in 1986, provide authorities for entering a facility and accessing information. Specific topics addressed include:

- Process characteristics;
- Hazard evaluation and release detection techniques;
- Training of operators and emergency response personnel;
- Management structure (corporate and facility);
- Preventive maintenance and inspection programs; and
- Community notification mechanisms and techniques.

This report contains observations and conclusions and recommendations from an audit conducted at (*facility name, city, and state*) from (*audit dates*). This report identifies and characterizes the strengths of specific chemical accident prevention program areas to allow the elements of particularly effective programs to be recognized. Copies of the report are provided to the facility so that weak and strong program areas may be recognized.

Attachment 9

Documentation Pertaining to the Processes and Operations Using Hazardous Substances

Sections 6.2.1 and 6.2.2 require a review of processing and operating procedures. The following topics and questions will assist in obtaining a more detailed understanding of process operations.

Review the appropriate documentation related to process equipment and operating procedures at the facility. Typical documentation in this area will include Process Flow Diagrams (PFD) and Piping and Instrumentation Diagrams (PID). The following questions indicate items that you should check.

- Is the documentation complete, accurate, and legible?
- Are symbols used uniformly?
- Are items such as the location and sizes of nozzles for connection of process lines, utility tie-ins, relief devices, controls, drains, vents, and blinds included?
- Do the different pieces of equipment have assigned numbers and are their descriptions given?
- Are the equipment parameters (e.g., dimensions, capacity, surface area, temperatures, pressures) specified?
- Are equipment spares shown?
- For piping, are the items such as rating, diameter, fluid flow direction, insulation and tracing requirements, and sloping requirements for expansion shown?
- For instrumentation, are items such as control parameter, indicating and recording functions, transmitter, signal type, control valve size, and actuator type shown?

PIDs indicate whether or not the crucial operating parameters are being monitored in order for the operator to be able to respond to upsets in a timely manner. Therefore, review a PID for the following: parameters monitored, whether alarms are provided, provisions for automatic shutdown, interlock systems, overpressure protection, disposal method of relief stream, and other similar information.

Carry out a spot check by comparing a portion of the PID to what actually exists at the facility to check for accuracy.

Attachment 10

Descriptions of Standard Operating Procedure Manuals

Section 7.2.1, Standard Operating Procedures, of the protocol/report preparation guidance lists several types of SOPs that should be reviewed. The following descriptions provide types of information that each manual typically contains.

Supervisory Operating Manual

- Feed and product specifications;
- PFDs; PIDs; MSDSs;
- Process parameters;
- Intermediate stream normal operating guidelines;
- List of alarms;
- Interlocks;
- Setting;
- Narrative description of start-up;
- Testing;
- Shutdown; and
- Emergency situations.

Operating Procedures Manual

- Detailed valve-by-valve procedures for all operating tasks;
- Schematic drawings;
- Safety instructions; and
- Equipment and systems.

Safety Procedures Manual

- Safety systems and equipment;
- Safety procedures; and
- Instructions.

In addition to this information, operating logs, shift turnover procedures, and other miscellaneous operating procedures should be checked. Examples of miscellaneous topics that can be investigated are:

- Overtime procedures;
- Callout procedures during emergencies; and
- Reporting procedures of unusual occurrences.

If overtime records show that the hours worked per shift are high, this could indicate crew fatigue leading to a potential for human errors.